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Engraved by Albert Bell
N.Y.

Ezra Whitman

THE MARYLAND FARMER:

DEVOTED TO
AGRICULTURE, HORTICULTURE,



LIVE STOCK
and RURAL ECONOMY.

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Our Frontispiece.

This month we present to our readers a steel engraved, life-like representation of the proprietor and senior editor of the MARYLAND FARMER. In connection with it we give a short biographical sketch of Mr. Whitman, taken chiefly from "The Monumental City; History, Resources and Biography, from 1628 to 1880." By Geo. W. Howard.

"Those who have been instrumental in developing agricultural pursuits and bringing them to their present state of perfection, have rendered the world and mankind a service which cannot be computed. It is a source of gratification that our citizen, EZRA WHITMAN, stands prominently among those whose name and agency in this great department of human industry and civilization will become historical, as they are now honorable to his family and city.

"As a citizen, editor, and an inventor and manufacturer of agricultural implements he has exerted valuable influences on and in behalf of Baltimore.

"He was born in Bridgewater, Massachusetts, June, 1812, and reared in Winthrop, whither his parents removed when he was four years of age. Here his father had a manufactory, and machine works.

"Ezra, the son, early manifested that he had inherited his father's peculiar genius, and contrived some valuable improvements

in machinery which were adopted in his father's establishment. When 20 years of age, having learned various branches of mechanics, he desired to prosecute the watch-making and silversmith business and for this purpose entered the employ of Jacob Crooker, Waterville, Maine, extensively engaged in that department of manufacture. Before the expiration of the year he determined to engage in business on his own account, and through the personal introduction and recommendation of Mr. Crooker who had become strongly attached to him, he was enabled to purchase tools and a stock of jewelry and silverware, with which he began in Winthrop, Maine, June 7th 1833, when he was just twenty-one years of age which he continued for six years.

"About this time public attention began to be directed to the construction of labor-saving machinery, especially in agriculture. Mr. Whitman being a close observer of the times, and constant reader, became satisfied that there was an opening in this direction a profitable and useful field for genius and industry. He closed his jewelry establishment and began the manufacture of implements and labor-saving machines of various descriptions.

"His father had early projected and began the construction of a reaping machine which had advanced so far as to demonstrate its practicability, and Ezra Whitman determined to give his attention to the subject of reaping by a machine. With Mr.

Thomas White, who subsequently built a large establishment in York, Pennsylvania, he constructed a two-horse mower and reaper, which was probably the first complete one ever made. This was begun in 1824 and finished in 1832. It was of course comparatively crude, but demonstrated the feasibility and utility of such implements. Mr. Whitman, encouraged by its success, continued to manufacture and improve machinery, attaining a national reputation. Finding that Maine was too remote from the sections of the country where agricultural implements would be demanded, he came in 1843, to Baltimore.

"He opened a steam factory for the manufacture of various farm implements, and one for making plows by machinery. He also opened a warehouse for the sale of all kinds of implements, seeds, fertilizers, &c.

"Up to this period the farmers and planters had proceeded upon the old principles and methods of tilling the soil and gathering crops, with little prospect of change. Mr. Whitman, with wise regard for the public good and the interest of the producer, in the spirit of a reformer, agitated the whole question of agriculture and disseminated through the press, his views.

"He then interested himself in the agricultural welfare of the country, especially of his adopted State. He became a director of the Maryland Institute, to encourage mechanical ingenuity and skill; assisted in the organization of the Maryland State Agricultural Society, of which he is a vice-president; circulated ably written articles upon all subjects of interest to the farmer. He founded and has since edited the *MARYLAND FARMER*, a monthly magazine which is recognized as one of the leading agricultural journals of the day.

"In December, 1873, he prepared and published in the *MARYLAND FARMER*, an appeal to the public for a "Maryland State Horticultural Society," the result of which was the organization of the present society of that name, by himself and a number of other leading gentlemen; of this he was chosen the first President. The benefits which this has conferred upon the State, are seen at each annual fair, in the exhibition of splendid fruits and other productions of our State.

"As a just recognition of his position and influence in the department of agricul-

ture, he was elected treasurer of the NATIONAL AGRICULTURAL CONGRESS, in 1876, and continued to hold the office a long time. For many years he has been and still is a member of the Board of Trustees of the Maryland Agricultural College.

"Mr. Whitman has spared neither time nor money to elevate the vocation of the farmer, and advance the agricultural interests of the whole country, and with that view has traveled extensively in all parts of the United States and Europe.

"Though agriculture and agricultural implements have been Mr. Whitman's specialty, he has not confined his attention and efforts to them. He has always been thoroughly awake to the general interests of the country and communities in which he has resided.

"While a young man, in Maine, when the North-Eastern Boundary Question threatened war between England and the United States, and Governor Fairfield ordered out the State militia, Mr. Whitman was detailed as captain of a militia company, to draft thirty men and rendezvous at Augusta for the protection of the North-East Line. In the midst of the snows and storms of that severe climate, he reported his company ready for duty at Augusta, in the remarkably short time of *thirty-six hours*.

"In 1867, he was a delegate from Baltimore to the State Convention for framing a new State Constitution, and has been prominently interested and consulted in many matters of public improvement and enterprise.

"The commercial house which Mr. Whitman established in 1843, is now conducted under the firm of EZRA WHITMAN, SONS & Co., by his sons, Frederick Winthrop and Harry Fay, whom he educated to the business, and have taken high positions in the commercial ranks as efficient merchants. His eldest son, Ezra Whitman, is now president of the Baltimore Plow Company, to which he devotes his constant attention.

"This brief sketch of Mr. Whitman is sufficient to show that he has during his honorable career in Baltimore, rendered it a signal and abiding service, and that he must and will be distinguished in its annals as one of the principal agents in its commercial progress and a real benefactor to the State of Maryland, in being among the

first to emancipate her farmers from the tyranny of old and effete methods, and supplying them with material and machinery which have transformed her territory into bountiful pastures and fields, beautiful gardens and laden orchards gleaming with golden fruit."

In addition to the above facts we would add, that he is at present a vice-president of the old United States Agricultural Society and also a vice-president of the American Agricultural Association.

It must be a source of great satisfaction to Mr. Whitman that he was one of the first who solved the problem of cutting grain by machinery, and thus opened the door of invention to the perfect mechanism of the present time in such harvest machines, by which manual labor is almost dispensed with. He built the first establishment south of Mason & Dixon's line, for the manufacture of plows by machinery, thus furnishing these indispensable articles to the farmer at greatly reduced cost. Another source of commendable pride must be the consciousness of having in 1864, when the dark shadow was resting upon our country, true to the great agricultural interest, started the MARYLAND FARMER, which ever since has increased in popularity and value to the farming interest, while owing to enterprise on his part, he has been able to reduce the price of subscription until now it has become the lowest priced agricultural paper, while it has no superior in this country, in its line of furnishing substantial knowledge and reliable practical information upon all subjects cognate to the pursuit in all its branches, and to home life.

We cannot refrain from giving an extract from a well written yet concise biographical sketch we find of him in the Biographical Encyclopedia for Maryland and the District of Columbia.

"For a man of his years (now in the 72nd of his life,) he is comparatively young in appearance. He is in the enjoyment of good health; is cheerful and urbane in his

manners, and though on suitable occasions determined and undaunted, is gentle and mild in his demeanor and speech. He is active and dignified in his bearing, warm in his friendship, and unswerving in integrity. In all the relations of life he is irrepachable, commanding and deserving the esteem and confidence of his fellow citizens and enjoying the rewards of his well spent years."

Such is the man as represented by others, and such is the correct personal portrait that the artist has produced. We refrain from giving our own estimate lest it be considered the offspring of interested partiality, but content ourselves with the presentation to our many readers as a souvenir, at the suggestion of several, this *Frontispiece*—a fair counterpart of our Chief and friend.

For the Maryland Farmer,

Thorough Cultivation.

Thorough cultivation of nearly all kinds of crops is absolutely essential to produce good returns, for even richness of the soil will not alone compensate for the neglect to cultivate deeply and constantly. One of the greatest troubles with nearly all of the tillers of the soil is planting far more land, each spring, than can possibly be properly cultivated during the growing season, and this accounts, in a great measure, for the poor average yield per acre. When more crops are planted than can be properly attended to, not only are they partially neglected, but the farmer or planter is constantly driven with his work; he is never done, and is always behind-hand with everything, which is an additional and very serious source of loss. There are some cases where cultivation, for the time being at least, is undesirable, as in the case of fruit trees after they are several years in bearing, when they require a couple of years rest, and even when cultivated, up to that time, the cultivation must be done by careful, experienced persons, else many of the roots will be needlessly destroyed, and perhaps the trees otherwise injured or destroyed. By thorough cultivation, we mean systematic and common sense cultivation, reference being had to the needs and requirements of each crop or kind of produce grown. E., Jr.

Farm Work for July.

Of all months in the year, this month may be termed the hottest and yet most exacting labor-month in the whole year. In this section every sort of farm work seems to be pressing upon the farmer. Particularly this year, as the peculiar late season for corn planting brings this crop into positive opposition to harvest. It is now in a critical condition and must have its work just as needed, or it will languish so much as to prevent proper earing. The grain, such as rye and wheat, demands prompt attention. The former may have been reaped, and the latter in some sections, but as a rule, in the Middle States, July brings a general harvesting of wheat, grass and oats. All usually press each other. Wisdom would tell us to see that the corn is not neglected, and the wheat must be gathered at any cost. Fortunately mechanical science and inventive genius is at hand to supply to a great degree the want of manual labor. The reaper and the mower have become old acquaintances, but the combined reaper and binder has made its appearance, and even the reaping binder, with thresher and bagger are begging employment, so that the farmer is made independent of the old time, unreliable field labor. Machinery, like figures, seldom lie. Horse-power applied to machinery cannot fool the employer; the machine must be at work or it stops still. It is a self-registering timekeeper of its work and therefore the farmer is somewhat independent of time servers and eye service, free from all plausible excuses and other worrying events that happen while the grain is ripening for destruction by the storm that is fast approaching. Let our farmers thank God, and return our acknowledgment to the genius, the inventive genius of our countrymen, for these boons that intelligence in farm will avail itself of speedily, to obtain comparative freedom from the despotism of manual labor. See then that every man is owner or has joined a club to obtain a reaper and binder, a mower, hay tedder and horse rake, that they may be ready for harvest of either grain or hay, whether hands work or not. The co-operative plan is the true one for the mass of small farmers. "In union there is strength," and is the sinew that individual property requires to make riches.

Cultivation of Corn.

At this backward season, with the harvest pressing upon the ordinary hands of the farm, it is better to secure additional force wherever it can be had, rather than the corn should suffer.

The product of corn on all soils not wholly exhausted of their plant food, depends very largely upon thorough tillage. A light, loose, friable soil, kept constantly stirred and perfectly free from the growth of weeds and grasses, is absolutely essential to the vigorous growth of this fine cereal. It is therefore a matter of the first importance that the cultivator and the shovel plow should be kept running through the rows, and that the hoe should be freely employed about the hills until the corn is ready to be laid by. The more the soil is pulverized and the cleaner it is kept the better will be the chance of an excellent crop.

Buckwheat.

This grain should be in the ground by the close of the second week in July. If the land is poor, give it a moderate dressing of ashes and bone dust, say ten bushels of ashes to one barrel of finely ground bone, or two hundred pounds of South Carolina dissolved rock and one hundred pounds of Kaint, well mixed, broadcast, per acre. When the buckwheat comes up, sow one hundred pounds of gypsum (plaster,) per acre over it.

Orchards.

Keep the trunks and limbs of the fruit trees clean and in a healthy condition. If they are scabby, mossy or otherwise diseased, scrape them well and apply the often recommended mixture of whale oil and soft soap. As a preventive of insects, and of the borer, particularly, substitute a small quantity of coal oil (kerosine,) for the whale oil. Cut all black knots from cherry and plum trees and burn them. Cherries, apricots, plums and pears may be budded towards the close of the month.

Late Potatoes.

Keep the earth stirred about them. Dust the plants with ashes and plaster, and keep free from their present great enemy—the Colorado bug—by use of Paris Green, London Purple, or what is less dangerous, indeed, harmless to the sower or him who handles it,—the "Slug Shot." This is a preparation warranted to destroy these bugs, as well as all insects injurious to vegetable growth, alike with those that prey upon small and large fruits. Try it by all means, as it is highly recommended by many reliable and practical men.

Stock of all Kinds.

See that all the stock have good pasture and pure water, with free access to salt, and shade sufficient to protect them from the scorching

rays of a July sun. Any animal which appears to be drooping or shows signs of disease likely to prove "catching," should be at once removed from the common pasture and confined to the sick pen, or hospital lot, which should be found as an indispensable place on every farm. This lot should have an open shed as well as a tight box, of size enough for full comfort to the invalid. This box or stall should be well ventilated and *thoroughly disinfected* after every time being occupied by a patient, whether affected or not by a contagious or infectious disease. Keep all the stock in condition, not burdened with fat, but in good healthy growing condition. Those intended for the shambles ought to be by themselves and given all the food they can consume, with appetites excited by frequent changes of diet.

Millet, Hungarian Grass and Corn.

If there is danger of want of a sufficiency of hay, the coming winter, it would be wise to select a few acres of good soil in fair condition, and by use of stable manure or some active fertilizer made rich, prepare it well by perfect cultivation and sow thereon millet, Hungarian grass, sorghum, or our tall growing field corn, for either soiling when the pastures fail, or for cutting or curing into provender for winter, or for ensilage. As to the latter, we have written and published enough from experienced stock feeders and growers, dairymen and others to show their views as to its feasibility, utility, and we might add, almost *necessity* to both the small and large stock grower, grazier and feeder. The grand results of the French system are yet to be fully appreciated, but they are in the womb of time and will very shortly be born and fully developed. Let our farmers try it on a small scale, at least, and now sow some seeds for that purpose, such as corn, oats and buckwheat, peas, millet, or its cousin—Hungarian grtss.

Remember, a silo can either be a common, deep ditch or cellar, such as we use sometimes for preservation of farm roots; or, it may be so constructed as to cost \$1,000. But as much satisfaction in life is some times had in a cottage of humble cost and aspect, as is seen and enjoyed in a half million palace; it is well for the public that silos can be built for the simple cost of labor in excavating a cellar, which will as well or better repay, than if the outlay had been \$1,000. The latter only has the advantage of permanency and convenience in winter, being in or a part of the barn itself, while the former is more ephemeral—but at much less cost—is

more easily filled, being on the spot, and much labor saved in hauling the green material at a time when speed often proves of much importance. By *ensilaging* you can save any green crop in wet as well as dry weather, and you have a food almost as pleasant to stock in winter, as is the green grasses of summer. You have 10,000 tons of this feed where if it had been been dried and cured into hay you would not have perhaps two tons while its value to stock is equal, one ton to 800 lbs. of cured hay from a best quality of grass like timothy or clover. We however only say, *try it, on a small scale.*

Garden Work for July.

The garden requires, this month, constant attention, and the industry of the gardener is highly taxed. He must be up early and late, unceasing in his labors and attention to the multiplicity of plants that require his care. This is the grand month for garden productions and looking after such fruit and early vegetable beds as have accomplished their work for the season, but should not be neglected now, if intended to be profitable another season, or to yield another crop the present one.

Melons, &c.—Keep the melon beds well earthed up, light as an ash heap, free from weeds, and water liberally after sun-down in dry weather. Do the same by canteloupes, cymbins and cucumbers, &c., all of which require similar treatment and similar attention. Take care not to bruise the vines in working them, and pinch off the terminal buds to throw the vines into fruit, and to prevent them from straggling too far.

Cucumbers for Pickling.—Prepare a bed and see that your plants are set out in due time, to give you a good supply of gherkins for pickles.

Melons for Mangoes.—As early in the month as may be convenient, get ready a piece of ground, spade and rake it, and lay it off in hills six feet apart. Manure each hill with the richest contents of the barn yard or the hog pen. Sow your seed, some five or six in each hill, and when the plants are well up, keep them growing rapidly by constant working, and by watering them liberally in dry weather.

Dwarf Beans.—Plant a few rows of Dwarf beans in a shady part of the garden every week during this month to keep up a regular supply. Water freely, of an evening, three or four times a week, during dry weather.

Cauliflower.—If you have cauliflower plants, set them out just before a rain, and in their after

management treat in every respect as cabbage are cultivated.

Small Salading.—Continue to sow small salading of every kind during each week of the month.

Lettuce.—Continue to set out lettuce plants, and sow lettuce seed at intervals of ten days throughout the month for succession. Take care that the growing plants are kept well watered.

Radishes.—Sow radish seed every week or ten days throughout the month.

Egg Plants, Tomatoes, Peppers, &c.—These plants ought to have been set out not later than last month. If, however, a favorable opportunity has been lost, go to work and plant them at once, and endeavor to make up for the delay by extra attention. Keep the ground light, manure it well and water freely of an evening.

Leeks.—Transplant these during the early part of the month.

Pot and Medicinal Herbs.—Gather these—dry them in the shade or in some dry, airy place, and pack them carefully away.

Propagation of Herbs.—Continue to set out slips of sage, thyme, lavender, hyssop, winter savory, &c., of this year's growth, and water liberally and frequently until they take root.

Ruta Baga Turnips.—It is not too late, up to the 10th, to sow ruta бага on rich, well prepared soil. The Hybrid yellow, Aberdeen yellow, and such like may be safely sown a week or so later.

Late Cabbage.—The later the plants are put out without detriment, the better, or they may head before the time for storage for winter. See that the ground is rich and well prepared. The cabbage plant is a gormandizer and will take any well rotted manure in any quantity, and is not particular as to the sort of fertilizer, so there is enough. It requires very frequent stirring with hoe or plow, especially in a dry time. In planting set them deep, up to the first leaves, and see that the sub-soil about the roots is rich mellow, moist and well compacted about them. If cut worm is feared, it would pay, some folks say—to twine around the stem, paper, from the top of the root to the first leaf.

—*Celery.*—Now is the time to plant celery for winter use. It is the fashion now with market gardeners to plant it on level ground, 8 inches apart in the rows, and rows six feet apart, so as to give plenty of earth to hill up when it is to be blanched. We prefer, for family use, to plant in trenches 6 inches deep and 4 feet apart, and 4 or 4 inches apart in the trenches. The bottom of

the trench to be dug well, and plenty of well rotted stable manure thoroughly intermixed in this pulverized soil at the bottom of the trench. These little ditches should be a spade wide or 10 inches at least. In these set the plants, and after watering, cover over with thick brush or planks to keep off the sun's rays. Continue the watering and the covering until the plants set and begin to grow. Keep the soil about the roots stirred once a week and never let it suffer for water. Occasionally a wetting with a weak solution of salt, or stable drainings reduced by water. As it grows, fill up the trench, pressing the earth close to each plant, but be sure and not cover the heart or inside head of the plant. Celery requires a deep, very rich, rather moist soil, and all well pulverized. Never put earth to the plants for blanching when the plants or soil are wet or over moist, rather let the soil be dry when this is done. "The Boston Market White" is now popular, but Mr. Henderson, the great celery grower of New York, and others, recommend very highly, what in olden times we liked very much, the pink celery, but above that the new *London Red*, as better flavored and more crisp, hardier and better keeper during winter than any white variety. Now whether you plant white, pink or red, be sure to plant some, if only one or two hundred plants. We urge you though to plant one or two thousand, for all you cannot consume at home will bring 2 to 5 cents per plant in market at any time. This price surely will pay, and the surprise to us is, that so little attention is given to this delicious, health-giving vegetable, and so little amount, comparatively, is grown by our farmers who could, with but little trouble, grace their tables every day for three or four months with this grand esculent that would, above all, other winter vegetables, contribute to the luxury and the health of all consumers.

A Cheap Silo.

Last year a farmer improvised a small silo by sinking a molasses hogshead into the ground in his barn cellar. He cut up all his corn fodder with a hay cutter, supposing he had enough to fill about four hogsheads, but on packing it found it wouldn't fill one. He then bought of a neighbor as much more as one horse could draw, and still there was room. He then cut up the stalks from a piece of sweet corn, and with a lot of rowen managed to fill his hogshead. He made a close fitting cover, and with a jack-screw set under one

of the floor timbers, pressed it down as tight as possible. In the middle of December he opened his silo and found the corn as sweet and fragrant as when put in. From the hogshead he fed one cow half a bushel of ensilage morning and night for two months, and considers it the best producing food that can be fed. This year he proposes to fill the hogshead with oats cut just as they are in the milk. If a silo on so simple a plan is practicable, there is certainly no reason why everybody should not have one, and satisfy himself of the value of the ensilage system.—*Nashua Farmer*.

Ensilage at "Mountainside."

A BOLD MEASURE—FEEDING ENSILAGE TO ONE
OF THE FINEST JERSEY HERDS IN
THE WORLD.

While the adoption of the ensilage system has spread enormously during the past year or two, it may be doubted whether so valuable and exhaustive a test of its merits has been made as at Mountainside Farm, New Jersey, the property of Theodore A. Havemeyer, of New York city. It was a bold measure, several years ago to substitute ensilage exclusively for hay, in the feeding of one of the finest and most valuable herds of Jersey cattle in the world, a herd that would probably sell at auction for upwards of \$100,000, and where the income from the sale of highbred calves was of the first importance. It was bolder from the fact that in so doing, the grain ration of the cows was cut down to one-half that which had previously been fed with hay, causing greater physical dependence upon the new food. It was still bolder when, having passed through the winter, the cattle were not turned upon pasture in the spring, thus giving a respite from ensilaged food, as has been the custom elsewhere. From October, 1881, until now, the entire herd, old and young, were kept upon ensilage, without intermission, save occasionally, when, for a day or two, a change was made for the sake of experiment. The result has been that, with half the amount of grain formerly fed with hay the same cows have averaged over roolbs. (fifty quarts) more of milk per month than they did on the old diet. Their coats look glossy and sleek and every indication is

that of blooming health. The calves that have been dropped upon the place by silo fed parents, themselves silo reared, are pronounced, without dissent, by the hundreds who visit the place, to be of the best quality and in excellent condition. It may be doubted whether another lot of animals, equally large, vigorous and healthful, at various ages, can be found short of a climate that affords pasturage the year round. While much of this condition is due to the fact that the parent herd, both as regards the imported and the native bred animals, was selected with an eye to constitution and superior physical capacity, their blooming condition is unquestionably due, in a great measure, to the method of feeding.

Notwithstanding the undoubted success of ensilage feeding, Mr. Havemeyer and his foreman, Mr. Mayer, admit there are some facts connected with ensilage that are hard to account for. While it appears improbable that the feeding of green forage could be improved upon its natural condition when fresh, by stowage under pressure in a pit, the experiments at Mountainside Farm raise the question at least to the dignity of a debatable one. When in August last, the working force of the farm was concentrated upon the great work of transporting the fifty acres of green corn fodder from the fields in which it grew, through the giant cutters and carriers, into the great pits where it was to be preserved for the coming year's use, a pit of ensilaged rye fodder which had been stored earlier in the season, and from which the herd were being fed, gave out. To open a new pit would be to divert the use of the machinery and the time of three or four men from the special work of harvesting, to which all energies were being devoted. Mr. Mayer therefore ordered that several loads of the corn fodder, cut fresh in the field, should be placed before the cows instead of their customary feeds of ensilage.

Now, every country boy who has had to drive the cows out of the cornfield and noted the persistence with which some cunning old cow will find or make a hole in the fence to get back, knows that cows like corn fodder. That they ate it with great relish was evident, and they ate a much larger quantity than they did of the rye ensilage; nevertheless, with the same grain ration they fell off in milk. Thinking the result due to the fact that the ensilage had

had the advantage of having passed through the cutter, the fresh corn fodder was then submitted to that treatment instead of being fed long, but the milk continued to diminish until at the end of three days, the average daily shrinkage per cow was four pounds (two quarts,) which when tested in quality showed two per cent less cream. A new pit of ensilage was opened and in two days the cows were back to their full flow. This comparison between ensilaged rye and fresh corn fodder is the more surprising from the fact that as a fresh feed, rye fodder is inferior to corn fodder.

The discrepancy cannot be attributed to a difference in amount of food, for, as carefully ascertained, the cows ate 60 lbs. of the corn against 25 lbs. of the rye. Nor can it be accounted for on the principle that ensilage is a more concentrated food, in the sense that one ton of hay contains more sustenance than several tons of green grass, being a condensed product, for ensilage is said to retain all its juices and to lose less than one per-cent. of its weight in the metamorphosis. The chemical theory is, that the method of storing ensilage causes it to develop lactic acid which is, in itself, a stage of digestion, and so effective in its action that the food renders a maximum of its nutriment to the support of the animal.
—*American Dairyman*.

MR. J. R. DODGE, Statistician of the Agricultural Department, in his report published recently, concludes that no country in the world has such excellent agricultural machinery as the United States; hence we import no goods of that sort, for those in use in England, France, Germany, and other countries would be cumbersome and worthless here owing to the antiquity of their style and mechanism. The farm census in the report gives the aggregate value of the live-stock in the United States and Territories as \$200,338,147. The average value of horses is \$70.09; of mules \$79.49; of milch cows \$30.21; of other cattle \$21.80; of sheep \$2.53; of swine \$6.75. These figures show an increase of \$12.07 on horses, \$8.14 on mules, \$4.23 on milch cows and \$1.20 on swine during the year just passed.

PARALYSIS.—Mr. Joshua Thomas, of Oregon, Ill., writes: That Stonebraker's Liniment cured his son of a severe case of Paralysis, that physician said was incurable

Don't Overdo It.

A writer in the Cincinnati *Gazette* says: "There is scarcely a farmer who does not plant a larger acreage than he can profitably attend to, and the result is, that three acres hardly crop out so much as one acre ought to; and we hear of twenty, thirty or forty bushels of corn to the acre where it ought to be sixty to one hundred bushels, and if the time spent on twenty acres of corn was spent on ten, and the manure dribbled on twenty were judiciously used on the ten, there would be ten acres to put in grass, set to enriching itself and at the same time making splendid pasturage for a half score of yearlings, besides realizing fully as much corn as in the old style way, and, instead of plowing the corn only two or three times, we had better plow it six times. Now I know whereof I speak. During a drought, several years ago, a certain farmer bade his boys plow the corn seven times that summer, and while the neighbors' cribs were very lean that year his crop was the largest ever gathered on that farm."

SALT VS. WIRE-WORMS.—As to whether salt will avail against wire worms, Mr. O. L. F. Brown, of Syracuse, writes to the Western N. Y. Farmers' Club, as follows: "It is well understood hereabouts that it will, and it is much used against all worms, chinch bugs, &c. The application of 300 to 500 or 600 pounds per acre, is found beneficial against worms, and helpful in brightening the straw and grain. Much more may be safely spread upon grass land, if spread evenly. We know one case, where the corn planted in a freshly plowed, old, wire wormy pasture was very fine where salt was applied, and nearly nothing where the worms had their own way.

STABLE MANURE.—The greatest waste in the South is in stable manure. Many farmers never think of saving. In Ohio the amount of compost raised on one 55 acre farm, from ten head of horses, and thirty head of cattle in one year, was estimated by the State chemist at \$2,650, and scattered 40,000 lbs. to the acre, made a net profit of \$300 an acre.—Ex.

329 Spavins on horses, cured by Kendall's Spavin Cure. Read their advertisements.

For the Maryland Farmer.

Mind and Muscle in Farming.

BY D. S. CURTISS.

Some of the most intellectual and best educated men in our country are, and have been farmers or agriculturalists, in the fullest sense of that name; yet, it is equally true to the wide observer that the farmers, generally, as a class, are not as thoroughly thinking, studious men as it is for their interest and dignity to be. If they would use more brain work in the direction of their hands they would accomplish more, with less hard toil, than is now usually the case under prevailing methods.

The writer of this would not be designedly too egotistical, by parading himself too conspicuously in this article, but as his own career and long experience will fairly illustrate what is here meant, it may be useful to state it.

The writer devoted some 30 years of his early life in hard farm work, among first-class farmers, in the "Genesee Country" of Western New York, where the modes were scarcely at all changed in the system of farming; the same routine of operations was pursued, year after year, by nearly all farmers, almost as rigidly as if no other modes were possible; no one of them seeming inclined to stop and take time to deliberately *think* and *consider* whether improved modes or systems might not be devised and adopted, which would afford better results for a given amount of labor and expense, and at the same time give more pleasure in their application.

All saw plainly that the soil was becoming deteriorated, that the same land and labor was yearly yielding less return than in years previous,—consequently, less profits.

To be sure, there were some rare exceptions, in which farms were not apparently "running down," and where there was not an obvious diminution of yield per acre, in wheat, oats, corn and other crops, and in such cases a close observer would discover that the operator used "head work," considered and studied out the cause and sought the remedy in different and improved modes of cropping; and in all cases where the reason was observingly active, in carefully and seasonably planning and directing all operations with reference to

what was rational, and not blindly or unthinkingly, as to what had always been done and as "everybody did."

The result of this course invariably was—more profitable returns, less exhaustion of soil, and more pleasurable satisfaction in the business, with a higher sense of manhood and more self-respect in the farmer.

Men pursuing all other branches of business—as mechanics, merchants, millers, &c., adopt this course; they are continually using their mind, reason to see and find if there is not some better way than commonly or before practised. And if farmers expect to keep pace, in prosperity and influence, with other branches of business, they must speedily, earnestly and continually put their minds prominently in the ascendancy, as mental powers are superior to physical powers, and should direct them.

After the earlier half of his life and labor had been expended, as above stated, in drudgery, the writer removed to newer fields in the new States of the West, where he devoted another dozen years in hard farm work, but with more calculation and reason, being nearly free from the bias and control of the habits of earlier work, and farm management as "his fathers did."

And it is just to say, that he was rewarded with better returns, from even less severe toil and greater pleasure in the performance of all his labors; more and judicious work of the mind, using careful thought in each operation, to determine, not what was the usual, but what was the best way to do everything. He studied and strove as far as possible to learn the nature of everything, in production, the cause of all desirable results, the reason for all unsatisfactory effects, and so on, year after year; and as regularly learned something of advantage every year.

There is no avocation among men which affords so wide a field for the exercise of all the higher and most varied powers of the human mind, as agriculture in all its varied branches; and there is no other in which a more brilliant and distinguished character for knowledge and usefulness can be achieved than in faithfully, earnestly studying and developing truths in agriculture, stock breeding and fruit growing.

To stimulate especially our young farmers, with an earnest desire for higher achievement, and to impress upon them

vividly the truth of the noble principles above suggested, is the chief object of writing this article. The writer, in a life of three-score years, most of them devoted to practical hard farm work, under varied conditions and in several States and regions is able to speak with some degree of confidence. It is not his design here to give specific details in farm work; but more particularly is it the writer's design to give some of the more important reasons for more education and mental exercise in the work of general farming and breeding. The elements of agriculture should be taught in the rural common schools, and suitable books and teachers should be supplied, and this course would soon furnish more and better students for filling the agricultural colleges; more pupils, with a spirit and appreciation of those institutions, would seek them with more enthusiastic ambition for honorable achievements, and from them at graduation, with more zeal and capacity to reflect honor upon their *Alma Mater*.

Besides, there is a very greatly changed condition of affairs in the farmers' realm now than existed 50 years ago, in the writers early farm life. Mechanics have been alive and active in supplying vastly improved tools and implements for performing all of the farm operations. When I was a boy, the old wooden plow and mouldboard, edged and pointed with iron or steel was all we had to do the plowing with; all know the improved ones we now have. Then, we cut our grain with the back-aching sickle and scythe; see our splendid reapers! Then, we thrashed the grain with flails, by hand, on the barn floor; now, by steam machinery. But I will not detail all, there are equal improvement and facility in implements for planting and sowing seed. Now, a whole farm can be sown, or harvested, or thrashed in a day, almost—that in my youth would take a month, nearly; and this means of rapidly cropping, as rapidly impoverishes or exhausts the soils; hence, new modes and better must be devised and adopted to preserve the fertility and producing power of our land; and this requires thought and reason, or these many and vast improvements in machinery for labor saving, will, in the end, prove a curse rather than a blessing to farmers. Farmers, think of this, *now!*

We thought we were too late until we saw the advertisement of Kendall's Spavin Cure.

OUR FARMERS' OLIO.

We take the liberty in this olio of mixing the good things we find in our exchanges; as it is the cream from the hints of others who say *multum in parvo*, it should be digested and pondered over by our practical farmers, for future guidance.

The State of New York claims one million and a half of cows, whose annual products are worth one hundred million dollars. Does the dairy business pay?

In selecting a cow, as in selecting a wife, or a husband even, while good looks is worth something, it will not do to overlook other important traits. A good cow for milk usually devotes her energies to the production of milk, and hence is liable to be a little angular in shape, while her udder will be large and well rounded out. Take an ideal Jersey, for instance, and note her build, and the same general features hold with respect of all good milkers.

It does not pay to keep poor stock of any kind. If every animal is good of its kind, it is always salable, and can be turned into money at any time that it is desirable to do so; whereas an inferior one is always a drug on the farmers' hands.

We would like to see or hear of a cross of the Holstein and Jerseys, having an idea that such cross would give the ideal dairy cow; the Holstein giving size of animal and large quantity of milk, while the Jersey blood would improve its butter producing qualities. Has any one tried such a cross, and with what results?

FARMERS' HORSES.—Breeding fancy trotting stock is all very well for one who has plenty of money to spend and can afford to put up with ninety-nine failures for the sake of one success. But the ordinary farmer cannot afford to indulge in such costly recreations. He wants an animal that will be serviceable if he keeps it, and salable if he wants to sell. Such stock he finds in a cross of the ordinary mare with the heavy draft stallion. It gives him colts which will earn their living on the farm from the time they are two years old; which will bring good prices whenever he is ready to

sell, and which buyers will come after and pay just as much money for, if hitched to the plow and ungroomed, as if in the stable and showing the most careful grooming.

SALT is essential to the health of all animals. According to Prof. Johnson, one-half of the saline matter of the blood is common salt. The cartilages of the body and the bile contains soda, one of the ingredients of salt. These elements are constantly passing off from the body in the process of digestion, respiration and insensible perspiration, and should be constantly supplied, either by keeping salt within the reach of the animals at all times or feeding it to them at stated intervals. No domestic animal will take more than of it than its system requires. Nature can be trusted on this point.

The most desirable soil for an apple orchard is one which contains both clay and sand, although the field which contains only one of these can be well fitted by adding the other.

The harrowing of grain after sowing develops on good land as much nitrogen as could be got by a dressing of \$5 worth of commercial manures per acre.

Pregnant animals, according to Fleming, a veterinary authority, should be well fed, care being taken at the same time to prevent too great a tendency to fatten. If during this period they are required to labor, or give milk, there is the double tax upon them of performing these services and at the same time furnishing nutriment to the growing fetus. The food should be of a quality easy of digestion, and at the same time nutritious, calculated to promote the growth of flesh rather than fat.

One ton of cotton-seed, it is stated, yields thirty-six gallons of crude oil, worth about \$18. The hull from a ton of seed weighs about 900 pounds, and the meal before pressing weighs 1100 pounds. The oil-cake is worth \$27 to \$30 per ton. It is calculated that there is a net profit of about \$9 in grinding the seed of a bale of cotton.

New rope for halters, it is said, can be made permanently soft and pliable by boiling two hours in water and then drying it in the sun or in a warm room.

Simple but Sure Remedies.

Dr. Hall's Medical Journal, one of the highest authorities known, gives the following, which is worth being known in every household.

Half a teaspoonful of common *table salt* dissolved in a little cold water, and drank, will instantly relieve "heart-burn" or dyspepsia. If taken every morning before breakfast, increasing the quantity gradually to a teaspoonful of salt and a tumbler of water, it will in a few days cure any ordinary disease of dyspepsia, if, at the same time due attention is paid to the diet. There is no better remedy than the above for constipation. As a gargle for sore throat it is equal to chlorate of potash, and it is certainly safe. It may be used as often as desired, and if a little is swallowed each time it will have a beneficial effect on the throat by cleansing it and by allaying the irritation. In doses of one to four teaspoonfuls in half pint to a pint of tepid water, it acts promptly as an emetic; and in cases of poisoning is always at hand. It is an excellent remedy for bites and stings of insects. It is a valuable astringent in hemorrhages, particularly for bleeding after the extraction of teeth. It has both cleansing and healing properties, and is therefore a most excellent application for superficial ulcerations.

Mustard is another valuable remedy.—No family should be without it. Two or three teaspoonfuls of ground mustard, stirred into half pint of water acts as an emetic very promptly, and is milder and easier to take than salt and water. Equal parts of ground mustard and flour and meal, made into a paste with warm water, and spread on a thin piece of muslin, with another piece of muslin laid over it, forms often an indispensable "mustard plaster." It is always a specific for colic, when applied for a few minutes over the "pit of the stomach." For all internal pains and congestions, there is no remedy of such general utility. It acts as a counter-irritant, by drawing the blood to the surface; hence in severe cases of croup a small mustard plaster should be applied to the back of the child's neck. The same treatment will relieve almost any case of headache. A mustard plaster should be moved about over the spot to be acted upon, for if left too long in one place it is liable to blister. A mustard plaster acts well when at con-

siderable distance from the affected part. An excellent substitute for mustard plasters, is what is known as "mustard leaves."—They come a dozen in a box and are about four or five inches in size; they are perfectly dry and will keep for a long time. For use, it is only necessary to dip one in a dish of water for a minute and then apply it.

Fairs this Year.

VIRGINIA.—The Virginia State Agricultural Society will hold the State Fair at Richmond, Oct. 31–Nov. 2. W. C. Wickham president; Geo. W. Mayo, secretary.

WEST VIRGINIA.—The West Virginia Central Agricultural and mechanical Society, at Clarksburg, will hold its next fair at the above named place, Sept. 18–20. A. H. Osborn, president; Geo. Bastable, secretary.

NORTH CAROLINA.—The twenty-third annual Fair of the North Carolina State Agricultural Society will be held at Raleigh, October 15–20, 1883. Thomas M. Holt, president; T. C. Williams, secretary.

DELAWARE.—The Delaware State Fair will be held at Dover, Sept. 24 to 29. There is but one other fair held in this State—that of the Peninsula A. & P. Association, Middleton. W. Scott Way, Secretary.

Dover, Del. May 8. D. P. Barnard, Jr., Sec.

RHODE ISLAND.—The date of the State Fair is changed from September 11–14, to September 25–28. It will be held as heretofore, at Narragansett Park. C. W. Smith, secretary.

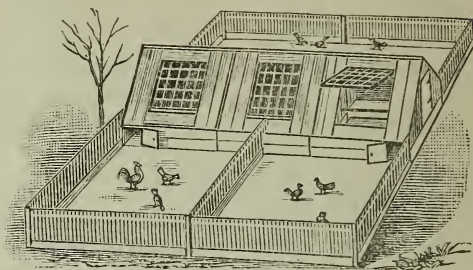
Providence, R. I., May 10.

CECIL COUNTY AGRICULTURAL SOCIETY.—The managers of the Cecil County Agricultural Society, among other things, adopted the premiums of the Mount Holly Agricultural Society, for poultry and pigeons, which includes chicks of this year's hatching and all kinds of fancy pigeons, embracing thirty-five different kinds and upwards of two hundred colors. The managers also concluded to offer premiums for unregistered thoroughbred cattle, and continue the offer of last year for the largest pumpkin.

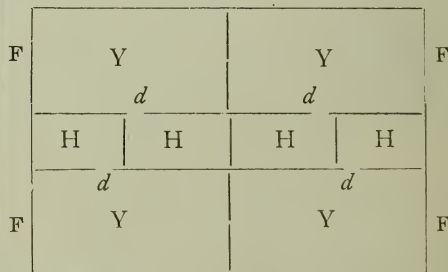
"BUCHU-PAIBA."

Quick, complete cure, all annoying Kidney, Bladder and Urinary Diseases \$1 Druggists

POULTRY HOUSE.



"Our artist has this month prepared another of his admirable poultry houses for the small farmer. In many instances it is desirable to keep the breeds separate, and the cut above shows houses for three varieties of chickens. The two outside houses have doors opening towards the front, out of which the poultry may come at pleasure. The centre house, though it has a window facing front and south, has its door opening into a yard at the back. The inside partitions can be made simply with lath and lath doors for the owner. By being in a row they can be made much more cheaply, and no arrangement other than this will allow so small an amount of ground to make three yards. For breeders and those wanting more than three houses, the following plan can be added to the first.



"H H H H represents four houses, such as are shown in the first picture. Y Y Y Y are the four yards, made by fence F F F F and d d d d are the doors from which poultry can enter the yards. The houses should each have glass at south as shown in the first cut."

For the cut and explanation we are indebted to that courteous and elegantly gotten up journal, *The Farm and Garden*,

published in Philadelphia, Pa. It seems to us that this poultry house and yards are the cheapest, most convenient and best arranged of any we have yet seen.

LARGE numbers of fowls can be kept with profit, if not over fifty be kept in one colony. Houses eight to ten rods apart, built 15 by 30 feet, with open sheds attached to each end, of 12 by 15 feet the house properly divided in the middle with a tight board partition and fences running from rear of one to front of the other, will keep 100 fowls in each house and in colonies of 50 each, and they will be far enough apart to secure roosting and feeding in their own quarters with ease, as to cleanliness, will enable one to keep any number he chooses. In this way his line of houses can be ten miles long if he chooses, and a row each 20 rods apart and no fence required. If kept on so limited a space as to destroy all vegetable growth, then forage crops must be raised.—*Poultry Monthly*.

Care of Poultry.

Mrs. Mary B. Danly, in that esteemed journal, *The Drainage and Farm Journal*, writes, among other things, the following:

"A few timely hints in regard to treatment as the weather grows warmer and I have done. During the heated term all kinds of vermine propagate rapidly, and, if allowed, will prove to be the pest "whose name is legion." Examine your fowls frequently to make sure they have no lice upon them, and watch with a jealous eye for the appearance of the tiny but abominable pests—the poultry parasite. The "ounce of prevention" should be brought into requisition now, if ever. If hens are kept sitting for late chicks, have special care to provide a cool, quiet place on the ground for them. A little hollow made in the earth, with a lining of clean fresh grass is sufficient. If the eggs get foul, wash them clean in tepid water, line the nest with fresh grass and replace the eggs. Carefully study the habits of your hens with chicks. They will be found to vary as much as other folks in disposition and habits. Such as prove quiet setters, careful and successful mothers, and tractable when their keepers approach, should be spared for another

year's service. I have one (Old Brownie) seven years old, and she now has seventeen hearty chickens.

The great value of milk as food for poultry seems to be overlooked by farmers and those who have plenty. It is good for them in all shapes. It is eagerly eaten by them and they thrive on it as they will on nothing else.

The above is largely of my own experience, and hence I know whereof I speak, and I find that by proper devotion to the demands of the nature of our fowls, one will have but little use for the study of diseases. But there is work about it, as there is about anything we undertake if we do it successfully. Constant vigilance is the price of success in almost every undertaking, and in none other is it so applicable as in the breeding and management of poultry, whether pure bred or not, if profit is the desired result."

TURKEYS.

The *Poultry Monthly* says about turkeys:—

"We cannot recommend turkey breeding as a paying business to those who live in cities and villages, on account of restriction, but the farmer on his ample premises and extensive fields, can raise them cheaply and advantageously at the same time.

"Breeding and raising turkeys is not such a hard task as some people suppose. Adult turkeys are extremely hardy, and will bear the rigors of our Northern climate without showing signs of tenderness. The only trouble about the business is raising the young poults until they are a couple of months old. After that time there is not much danger, they will grow rapidly right along, and in the fall they will almost be as large as the old birds.

"When the poults are hatched, the first and most important thing to do is to secure them on a dry elevated place, where neither rain, dew or dampness will reach them. If the ground is cold or the least damp, scatter some chaff, corn husk leaves or, in fact, anything loose that will keep their bodies from resting on the bare ground. Feed them at first on hard boiled eggs, stale bread crumbs soaked in milk, and milk to drink if it is convenient and plentiful. Next day add curds or cottage

cheese, baked Johnnycake or oatmeal cake, soaked in milk. The following day cut up some onion tops and mix it with the food. And so on by degrees allow cut cabbage, grass, dandelions, and such like, with a variety of grain food in cooked form, until they are a month or so old; then their provender may be changed to something coarser and cheaper.

"Keep your young turkeys growing right straight from the start, and you will find that it will pay when pay day comes. After they have fully feathered and have thrown out the red on their heads, they may be allowed unlimited range at all times, and from that time on as long as the supply of insects last they will thrive upon two meals a day."

A WORD FOR GUINEAS.—The Guinea fowl is one of the best foragers known on the farm. It industriously seeks its food without scratching, and not only eats the seeds of noxious weeds and unpalatable grass but its quick movements enable it to be very successful in destroying winged insects. A flock of guineas will thus do very efficient service in that direction, and are also attractive and pretty fowls, even if they are noisy at times. In breeding Guineas the number of males and females should be equal as they are not polygamous, and mate in pairs.

PRESERVING EGGS.—Mrs. True of Nebraska, says she preserves eggs in clean, fresh, sweet oats; a layer of oats, then a layer of eggs, small end down. She begins the 1st of September, and continues till she has "oated" down thirty to fifty dozen, and finds them always fresh and good.

GUINEAS AND TURKEYS.—The Guinea fowl cannot be kept within enclosures, and are consequently adapted only to large farms. The same is true of the turkey. They both fly high and are great foragers, off to great distances. When kept in confinement they become sickly and will not thrive.

CROSSING GEESE.—The Toulouse gander mated with the Emden goose is the best cross that de made, the produce being a bird that grows to a larger size than

either of its parents, and presenting a marketable appearance that is very inviting. In flesh it is tender, and the quality is in every way superior to that of the common kind.

Late Sales of Improved Stock.

Mr. E. B. EMORY, Centreville, Md., has sold the following registered Short-horns.

B. c. Hamilton, Saml. Jester, Centreville, Md.	—	\$175
Cow Flora Gloster	do.	— 175
Flora Bright Eyes	do.	— 175
Melody 10th	do.	— 175
Flora Muzurka 41st	do.	— 175
B. c. Kent's Duke, J. B. Brown,	do.	— 100
—, J. W. Rombach, Milton, Pa.	—	100
Mary Kirk's Prince, C. Levering, Easton, Md.	150	
C. c. Victoria E. 2d,	do.	200
Catherine Princess,	do.	300
Geneva Rose, 2nd	do.	400

and 25 registered Berkshire pigs, at an average price of \$20 each. These pigs went to Georgia, Virginia, Pennsylvania and Maryland breeders.

At Chicago, on 5th April, at Dexter Park, there was a large sale of Canada and American cattle, at which only two reached \$1,000—but the polled Angus bull, Fitz-James brought \$1,000 and Bushranger of the same breed sold for \$1,150. This newly introduced and superb beef breed is taking rank rapidly.

THE MARYLAND FARMER.—The above named valuable magazine and farmer's consulting friend, for June, has been received by us. This is a most excellent number, containing as it does many and varied excellent suggestions in regard to agriculture and horticulture, apiary, &c. There will also be found in this number a splendid picture of J. R. Dodge, Statistician of the Department of Agriculture, at Washington, D. C., together with a short biographical sketch of his life. Persons desiring to subscribe can do so by addressing Ezra Whitman, Baltimore, Md. Price \$1.00 a year, in advance.—*Frederick Examiner.*

A SPECIFIC and the only one too for all forms and types of skin disease, is known the world over as Dr. Benson's Skin Cure. It is not a patent medicine, but a reliable, certain remedy.—*Druggists.*

The success of an orchard depends greatly on its early treatment. Culture, pruning, and manuring are most important the first few years; a lack of them at which time can never be atoned for by subsequent care.

THE DAIRY.

For the Maryland Farmer.

Theory and Practice.

For my own table I like an article of butter made from sweet cream, churned at 58°, washed clear of buttermilk at the granular stage with moderate strained brine, and packed directly from the churn into the crock, and set away for summer use, autumn use, or next winter, for that matter, for I have never found quite so satisfactory a way or one in which my butter would keep so long and fresh, by which I mean without loss of flavor. Then I am aware that others do fail by this or similar process, and great numbers of them, and the half made butter in the market has given to the sweet cream product a bad "racket," as the boys say, and a tendency to avoid such is the usual order. What we may say is not to convert any, but simply to show how this state of affairs has come about, and why the average butter maker has best succeeded by the employment of acid to aid him.

Unless cheap power can be had, and that at an exact required time, the labor of churning sweet cream is about double that of acid, and as but few men folks can spare the time for the longer churning, they declare the cream is "too cold," and so it is raised in temperature to 62° or even higher, this develops the adhesion principle named by a German chemist, "hydrate of casein," by far too actively, and the larger globules adhere at once and become masses of soft butter, decidedly too light in color, and the small globules which are always last to "rise," and yet later in "coming," remain in the fluid state, unchurned. The casein in the cream, has, by this increased heat, become plastic in a greater degree, and so clings more tenaciously to the butter mass, and by its superabundance and naturally white color, gives the butter its pale look, and the extra amount of casein in this plastic state also gives the butter its waxy and oily appearance, quite unnatural. By churning at lower temperature, and longer, the adhesion is somewhat delayed, and the butter all comes and explains why it is declared that sweet cream buttermilk can be profitably churned, which may be so at 62°, but impossible at 57° or 58°.

This leads us back to the beginning, that it is asserted that sweet cream butter will not keep, which can be explained from the fact that as usually churned it will not, as it is so highly charged with buttermilk, which, as has often been stated in the *FARMER*, is the actual and sole cause of butter soon deteriorating in quality and flavor; bad air and dirty hands doing far less damage.

Perhaps the most serious defect in churning sweet cream, which the maker encounters is, in regard to the proper mixing of the cream. In the usual dairy it requires several, or at least two or three skimmings to make a churning, and this cream though thought sweet, is of different "ages" and there is from this cause a difficulty in obtaining a perfect grained butter, which would not be the case in a large dairy, where one skimming would make a churning, or in the factory, where several churnings result from one mess of milk. A more uniform result is thus obtained by allowing the cream to sour, this acidity acting more uniformly upon the caseinous part of the cream, and thus liberates the globule from its milky envelope that is often called "sack," but which, in fact, is only a film of the other elements that besides fats compose the milk; and adhesion sooner results, though high authority asserts that the grade is lowered, but is compensated for in an increased yield from the cause stated in a former paragraph.

The churning of sweet cream requires a regularity that in the private dairy is often quite impossible, for if the cream stands too long it becomes ripe, and the high flavor is obtained, instead of that mild, creamy flavor which is so delicious to those who know it in its purity; and washing the butter, if the cream is sweet, is almost imperative to remove the butter-milk perfectly, whereas by the sour process, it may be worked out by presses or ladles, but the same after treatment of the sour is as highly advantageous.

Rightly entered upon, the making of sweet cream butter, except in the churning, requires no more, but even less labor, than by the acid process; but unless the operator well understands the principles involved he will best succeed with the older method.

As it now looks, the factory principles in dairying, will revolutionize dairying in re-

spect to butter making, transferring it from the house to a central point, and when this is done, a butter to suit the consumers taste will be the rule instead of the reverse as now exists. J. G.

Ohio, June 5, 1883.

Halters for Heifers.

Heifers should never be allowed to grow up to milking time without having been halter broken. Also, while young, and consequently a great deal more manageable, they should be taught to stand around and become familiar with being handled, so that when an attempt is made to milk them, they will not be frightened nor inclined to kick. It does not take any longer to break a heifer when young, and have her accustomed to being handled so that she will submit to being milked when the time comes, than it does after she comes in. It must be apparent to any one who gives the subject a moment's thought, that the latter is the worst possible to undertake training a heifer. She is in an excited condition; wildly afraid her young will be molested; naturally considers the effort to milk her is interfering with the rights of her young, which makes her still more nervous and excitable, and with a motherly instinct she will hold up her milk to save it for the calf. I like the plan of putting halters on heifers and tying them up in stalls the same as horses, when they can be taught to stand around, back up and step forward at the word, and by being led out to water, they can easily be taught to follow the halter. The udder and teats should be handled frequently, and the card brush used often. When these pains are taken, much annoyance may be saved afterward, and when it is necessary to move the cow from one place to another, her docile and gentle habits will be more than a reward for the trouble, and in striking contrast with yelping dogs, yelling boys, whips, stones, clubs and curses which too often constitute the outfit for driving unruly cows.—F. D. Curtis in N. Y. *Tribune*.

"As two boxes of Dr. Benson's Celery and Chamomile Pills cured a friend of neuralgia, whom the doctors couldn't help, I'll send for some for myself." Clifford Shand, Windsor, Nova Scotia.

Prepare for Drouths.

The diminution in milk superinduced by summer drouths is one of the farmer's drawbacks. The check in the flow of milk is sometimes felt throughout the whole season, even if favorable weather shall afterwards ensue, for when cows once fall off in their milk, it is hard work to bring them up again at this advanced stage of their yearly milk-giving period. Such a loss may be avoided by taking the precaution of sowing a small field of corn adjoining the pasture, or in some place where it will be large enough to use by the middle of July. Another piece may be sown later, for feeding in August. This will be found cheap and good food for milch cows, on account of its extraordinary succulence. Sorghum and millet are also good, but the corn for a soiling crop is better. On most soils it flourishes during a drouth, when everything else suffers. The cattle can be fed in the pasture, lane, or yard, at regular hours. An acre or two will often help out wonderfully in this way, and that which is not needed for feeding during the summer can be cut and cured for winter use.—*American Agriculturist*.

Preserving the Fertility of Farms.

In the case of the dairyman it makes a large difference what system he pursues. If the milk is sold, then a large amount of fertilizing matter is lost to the soil, as milk is rich in nitrogen and phosphoric acid. If the milk is made into cheese, then the principal of all the fertilizing matter of the milk is lost, as that is contained in the cheese. But if only butter is sold, and the skimmed milk is fed and the droppings all saved and applied, very little fertility is carried off. Dairying, with butter as the product sold, is one of the most favorable plans of preserving the fertility of a farm.

Sheep husbandry is also equally favorable, for there is nothing lost in this but the fleece and the lambs grown, which amount to a very small fraction of the fertilizing matter in the fodder eaten. Sheep leave at least 90 per cent. of all the valuable elements of the food eaten, upon the soil; but we must remind the farmer that even at this day, greater losses occur from the want of care in saving the manure made from stock than from all other causes combined.—*National Live Stock Journal*.

Fairs and Expositions.

The World's Industrial and Cotton Centennial Exposition at New Orleans, winter of '84-'85. The July number of the *Planters' Journal*, conducted by F. C. Morehead, Vicksburg, Miss., will be devoted to the World's Industrial and Cotton Centennial Exposition, recently located at New Orleans by the Executive Committee of the National Cotton Planters Association of America, as provided by the Act of Congress for its encouragement—an Exposition which, as is now universally conceded, will be the most important industrial event that has ever transpired in the South.

The citizens of New Orleans fully realize the vast advantages their city will reap from its site, and are enthused to a point of energy and activity that was never known to fail to accomplish the aimed at end. While the whole people of the country throughout its broad extent rejoice and reciprocate the enthusiasm of the citizens of the Crescent City.

Baltimore had this year a grand opportunity offered her for a great National Exhibition, in which the North, South and West would have heartily joined, believing that her central location and other advantages presented stronger claims for such an Exposition than that of any other city of the Union. An effort was made and advocated by us, to have a mass-meeting of the citizens to ventilate the subject, in which all classes could express their views and add many rills to the great stream of capital and energy that was required. But instead of this, a few individuals met and organized within themselves a corps of officers to consider the matter and put it on a proper footing; thus, the enterprise was smothered in its birth, and while this slow process was going on, Baltimore lost her great chance and other cities of more enterprise and push took hold and will re-

ceive the reward that always attends such laudable efforts on the part of any community. Louisville with one-third the population of Baltimore, will have a magnificent Exposition this summer. Boston will also have her magnificent display at her immense Mechanical and Industrial Emporium—the pride of Boston and wonder of the world. Alas! for the want of liberality in this city we must content ourselves with the attractions at Pimlico and our circumscribed show of the Oriole. Each one well enough in its ways, but only concern a few and bring together our city people with a few pleasure seekers from outside the city. Such grand exhibits as referred to, bring together men and women from all parts of the country and the world, and the result always is tremendous material progress.

The Tenth Annual Inter-State Picnic and Exhibition under the auspices of the Patrons of Husbandry of Pennsylvania, Maryland, West Virginia, New Jersey and Delaware will open at Williams' Grove, Cumberland County, Pa., on Monday August 20, 1883, and continue until Saturday, August 25th. Manufacturers would do well to write to R. H. Thomas, manager of the Exhibition, for circulars of information. His address is Mechanicsburg, Pa.

Governor Hamilton has appointed W. W. Spence, Jas. A. Gary, L. W. Gunther Gen. Bradley T. Johnson and Jas. Hodges to represent Maryland at the Louisville Exposition, which opens August 1.

The annual exhibition of the Lynchburg Agricultural and Mechanical Association will be held October 24, 25 and 26. The next fair of the Southwest Virginia Agricultural Society will be held at Wytheville October 3, 4 and 5.

Wells' "Rough on Corns."

Ask for Wells' "Rough on Corns" 15c. Quick, complete, permanent cure. Corns, warts, bunions.

MARYLAND FARMER

A STANDARD MAGAZINE,

DEVOTED TO

Agriculture, Live Stock and Rural Economy.

EZRA WHITMAN, Editor,

COL W. W. W. BOWIE, Associate Editor,

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☞ COL. D. S. CURTIS, of Washington, D. C., is authorized to act as Correspondent and Agent to receive subscriptions and advertisements for the MARYLAND FARMER, in the District of Columbia Maryland and Virginia.

☞ Our friends can do us a good turn by mentioning the MARYLAND FARMER to their neighbors, and suggesting to them to subscribe for it.

☞ Subscribe at once to the Maryland Farmer and get the cream of agricultural knowledge.

Our Correspondents in this Number.

The many original communications from able correspondents which grace this issue of the MARYLAND FARMER, will doubtless be as pleasing to our host of readers as it is highly gratifying to us. Each one is excellent, and therefore we speak of neither specially, but ask a careful perusal for all. The value and intrinsic worth of a Journal consists in, and is properly appreciated thereby, the worth of the information given by practical and intelligent correspondents.

Hammond's Slug Shot.

The manufacturers inform us that the magnificent trees at West Point U. S. Military Academy were nearly destroyed by insects, when Hammond's "Slug Shot" was used upon them, and they have been restored to their pristine beauty, efflorescence and vigor. Other plants, flowers and vegetables have been preserved by being dusted with this destroyer of insects. The officers at West Point pronounce it the most efficient preparation they have ever seen used. To be had in small or large quantities at this office. See advertisement in this number of the Maryland Farmer.

Maryland Horticultural Society.

This Society held its May exhibit at the the Academy of Music, in this city, and it proved a very creditable one. This display of flowers was excellent and delighted the visitors. A considerable number of premiums were awarded, and in the evening a meeting of the society was held, and Mr. James Pentland read an interesting essay on the care and culture of plants, telling how they should be shaded, watered, &c. At the conclusion of his remarks he was applauded, and the society, on motion Mr. Hoen, tendered him a vote of thanks.

Flies and Bugs

Flies, roaches, ants, bed-bugs, rats, mice, gophers chipmunks, cleared out by 'Rough on Rats' 15c

The Fertilizer Convention.

The representatives of this trade, in several States, assembled in Baltimore the last week in May, and formed a National Fertilizer Association for the better regulation of the trade, the elevation and extension of its business and the protection of its rights.

The meeting was presided over by Col. W. L. Trenholm, of Charleston, S. C., with A. DeGhequier, of Baltimore, Sec. The constitution contains the following article:

"Any individual firm or corporate body engaged in the business of the manufacture or manipulation of commercial fertilizers or the production of raw material may be admitted to membership on proposal of one member, seconded by another and on written application, if elected by the board of officers, on payment of the initiation fee hereinafter provided, together with the annual assessment then due, and on signing an agreement to abide by the constitution and by-laws, and all amendments that may be made thereto."

After the constitution was adopted and other business transacted, a vote of thanks was passed to Mr. T., the presiding officer, who in response, said:—

"The association has excluded gentlemen connected with the fertilizer trade, but they will find that it does not make any difference to them, as all the interests of the trade will be looked after, and all branches of the business will move along harmoniously. The local associations can include many branches not represented here, and thus they will have representation in the national association."

The convention then adjourned, when a large number signed the membership roll of the constitution.

"The association then went in a body to the ice-boat, F. C. Latrobe, at the foot of South street, upon an excursion tendered by the Baltimore Chemical and Fertilizer Exchange. An elegant lunch was prepared on board, and the members and a large number of invited guests enjoyed the delicacies served."

The association was called to order on

the boat, and received the report of the committee on nominations. This report was adopted and the following gentlemen were unanimously elected as officers of the association for the ensuing year: For president, Charles Richardson, of Wilmington, Del.; first vice-president, Col. W. L. Trenholm, of Charleston, S. C.; second vice-president, John M. Glidden, of Boston; third vice-president, E. Frank Coe, of New York; treasurer, W. H. Frafflin; directors, Charles J. Baker, John Ott, M. A. Stovall and Robert Ober.

The association then adjourned. We attended the meetings of this convention and participated in the delightful entertainment on the ice-boat, where we enjoyed not only the substantial but intelligent feast afforded by the several pleasant speakers who entertained for some hours the company most instructively, and can bear record that it was one of the most harmonious assemblages, and agreeable in all things that we have ever been present at. This we deem a fair opportunity for us to express, in part, our views in regard to this important and rapidly growing branch of manufacture.

Only since the introduction of guano and the beginning of agricultural progress under the stimulating influences of science and mechanical invention, all recent or comparatively so, has capital and scientific skill devoted itself to this business of manufacturing and manipulating various compounds of chemicals properly assorted for supplying plants with food suited to their respective wants. Only of late years has the farmer discovered that science is right when it asserts the necessity of feeding plants is as great as feeding animals, if profit is desired. The farmers know that an animal starved from its birth will never pay. That a poor beef will not equal in profit a fat one, and by a parity of reasoning a starved, neglected plant will not yield like one reared under the most favorable

conditions. Hence they see that if they desire to reap good crops that will pay for their labor, they must supply plant food in abundance to the soil, and this cannot be done on farms, with few exceptions, by stable manure, perhaps the best and most reliable of all fertilizers, but like many other good things is too scarce for the wants of all, hence a substitute must be resorted to, which in some instances may be as good or better than the manure—certainly, in every case the two combined, add much to the productive power of each.

Seeing the necessity for more plant food than could be amassed on the farm, under the careless method of preserving it, capitalists invested large sums in manufactories and other appliances to supply this great want of the progressive farmer. From small efforts or ventures, a gigantic trade has suddenly sprung up, and our own little State among the foremost to respond, has the lead of her sisters in the amount of capital employed in manufacturing food and stimulants to plants, while our people, impoverished as they were by the rigors of war, now find it to their interest to invest not less than \$2,000,000 per annum, in fertilizing material to feed their crops, and find profit in it, or they surely would desist, as they are as a class, remarkable for intelligence and shrewdness.

As in all trades and classes of business of a popular character, there are some frauds, we admit, but is butter to be made no longer because oleomargarine, in itself a good article, is sometimes sold as pure cow butter, by a fraud to an ignorant purchaser. Is all wine to be excluded from the mart because, here and there, an adulterated article is sold. We say, the true rule should be "*caveat emptor*," and let every tub stand on its own bottom. That is, the farmer should try the different fertilizers presented, upon a small scale and in different fields, with different crops, note results, after careful watching discard what

has proved worthless, yet, do not blame the fertilizer unless it has been proven a fraud, and hold on to the one that proved valuable to the particular field and crop to which it was applied. Yet do not believe that because it acted so well on your soil that it must necessarily act in the same way on your neighbors or everywhere else. This is against the common rules of science, observation and ordinary sense. What is good for one man, or one complaint, is not good for another. There is no panacea yet discovered against *all* the evils of Pandora's box.

This train of thought leads us into the wide field of difference of opinion as to the qualities of various fertilizers, into which we decline to enter. There are hosts arrayed against each other on the question of nitrogen. Let the giants fight it out, while the farmer quietly tries the different manures on his own land, in his way, and let him after satisfactory (to himself) trial, buy the brand that has suited his land and his own practical thoughts the best. If he finds that it pays him better to use ammoniated manure at \$40 per ton, than unammoniated at \$20, let him do it, and not be gulled by anybody relying solely upon science or their own experience or those of others. It is a great problem to be solved by every plain farmer for himself, by trying small quantities of differently constituted fertilizers to different plants, and *patiently* awaiting results after not one or two, but more years, on different soils and under different circumstances. Peradventure, he will find no one brand will suit all his fields or all crops. Let him note which suits for one field better than another, or which seems adapted to plant food of certain plants. With these observations in his note book, or his mind, he is "forewarned, therefore forearmed."

All we want to say just now, for this is too vast a subject to be finished off in one short article, pressed for room as we are,

is, that this subject more deeply concerns the land owner than it does the manufacturer of fertilizers. It has become now, not as was when in the embryo state, an expensive luxury for the rich, or the aspiring experimenters who wished to grow a great crop, but a necessity for every man who wishes to reap the full benefit of his toil at the least cost. Like ice, a luxury yesterday; to-day, an absolute necessity. What our fathers never wanted because they did not know of its value, and because the state of things was different, we, their descendents, must have or we perish. The world is moving and the wheel of progress is rolling, and if we do not move along, we shall be crushed to powder under the great wheel of progress. If the manufacture and sale of fertilizers is to be impeded and repelled by antagonistic laws, obnoxious decisions of judges and prejudiced verdicts, if the sellers of these various plant foods are to be treated worse than tree pedlars, imposters with wooden nut-megs, and tramps, by the imposition of heavy licenses and local laws, requiring bonds under heavy penalties, and above all, to be subjected to the trouble of farcical, often fraudulent *inspection*, then the best and most reliable men in the business must quit, and the true help to agricultural progress be abandoned. Just here, let us say that we are, and have ever been opposed to the inspection laws of every sort, looking upon them as sinecures for idle politicians, traps for the innocent, and enticements to fraud and speculation.

Let every brand stand untrammelled on its own merits and the careful, experimenting farmer will soon discover which one he most needs. Let this great trade be protected by the farmers, for whose benefit it is intended, and let them see that it is not made a mere machine to get money into the treasury, that wary public men may become directly benefited, and indirectly so, by gulling the honest tax-payer into

the belief that his taxes have been *lessened* by paying his share of the onerous taxes imposed on the article that makes his crops grow and improves his land. We may add more upon this subject, for we have just shadowed out our sentiments, which we trust the sober, reflective judgment of our reading farmers and planters will approve, and in their own way fill the skeleton with such vigor and active life as shall strike terror to the hearts of all who, through mistaken views, hamper this growing industry or trade by an army of office holders, backed by obnoxious laws, all of which get support from the pockets of plain men who are too busy at honest work to investigate and scrutinize the secret springs of this insidious foe to their best and dearest interests.

Horse Shows.

Why do we not have *horse* shows as well as fat cattle shows, poultry shows and dog shows? Surely the horse is the most valuable of all and most treasured by man. If the other shows have resulted in enlisting the public attention and improving the different classes of these animals, would not the same, or greater, results follow the shows of the various breeds of horses. It would open a field of comparison to the farmer who could then compare the different breeds, and upon personal inspection, exercise correctly his own judgment as to the strain or class of horses he desired to breed. Perhaps upon this personal inspection he might be induced to change his theory as to the particular breed he had before determined upon as the one in which was most monied profit according to his peculiar locality or circumstances. Let us have a special horse-show in every State, or one grand National Annual Show, and for the latter there is no better place than Baltimore, we suggest. Let one day at our next State Fair at Pimlico be devoted to this purpose by way of a beginning.

The Great Twin Steers.

Were raised in the West, and are the largest in the world; their united weight is 7,300 pounds. We saw them last month and admired their massive yet beautiful figures. They are *said* to be red Short-horns, but to us they looked very like they had some relationship to the lovely Devon. They are just alike, save that one is a shade lighter than the other and a bit heavier; both are deep red with a similar white spot in the foreheads just over the eye. They are so much alike that they should have been named "*Tweedle-dum and Tweedle-dee*, as lord Geo. Bentink christened a twin pair of thoroughbred colts that grew up so much alike as could hardly be distinguished from each other. These cattle are by no means very fat; they are active and healthy and we would say can easily by Christmas be made to take on 700 lbs. more fat and flesh which would then be 8,000 for the two. We make note of these cattie to encourage our readers to make efforts to grow large cattle that will mature early, and to impress upon them the fact that care, judicious feeding and kindness is all important in stock raising and will pay, and further, that every one should try his hand at this game as what "one has done, another may also." These steers had chiefly hay, and they had soft beds to rest upon with gentle whips of the brush and kind words and ways, with the cleanest water to drink.

Maryland Sheep for Texas.

We had the privilege of seeing, the last week in May, a lot of superior Shropshire-down sheep en route from the Eastern Shore of Maryland to Texas. The lot consisted of one two-year-old buck ram and five ewes, raised and bred by Dr. Wm. H. DeCourcy, of Queen Anne's county, and four ewes bred by Col. Edward Lloyd, of Talbot county. They were shipped to William Carmichael, of Callahan county, Texas, a son of Judge

Carmichael, of Queen Anne's county.— They will do credit to the old State in their new Southern home. It is gratifying to see at last that breeders of fine stock in the West and South are looking to our State for fine animals to improve the breed on their great plains. It is no boast when we say that within the limits of our State are to be found as choice and high-bred Hereford, Jersey, Angus and Dutch, and Short-horn cattle; as fine and high-bred racing and trotting horses; Cotswold, Southdown and Shropshire sheep; and Berkshire hogs, as can be seen in any State of the Union. Our breeders are gentlemen of skill and high integrity. They will stop at no price to get the best and are too honorable to sell anything that is not fully up to their representations. The wave of popularity is setting toward our old State and let our stock breeders consult their interest in embracing the opportunity, by telling the world in the columns of the MARYLAND FARMER what they have for sale. Having the best articles, why should we not proclaim the fact to the world? Why hide our lights under a bushel! Speak out boldly ye who have choice stock for sale. We are glad to know that the improved stock of Maryland is eagerly bought by breeders from abroad as soon as they know where and to whom to write for such as they want. Encourage cattle shows and advertise, gentlemen, if you desire fame and reward for your foresight and enterprise.

Wayside Summer Jotting.

On one of the hottest June days we were at and about St. Denis, Balto. county, Md. First we visited the U. S. Quarantine Grounds for imported cattle. Here we looked at over 150 Herefords; some were superb and all excellent. They were among the trees along a fine, clear stream, that passes through the lower end of their pasture. In the evening they were all feeding

in the open field and presented a beautiful pastoral scene, having a dark cloud as a back-ground for the picture, the sun's rays obscured by the cloud. The arrangement of the buildings along side the B. & O. R. R. is excellent, but not yet completed. This quarantine is near to Wynan's Station, on the Wynan's estate now owned by the B. & O. It is admirably located for such a purpose. The buildings are each about 50x30 feet and one storied, each with a tightly enclosed yard. They are built in rows, with wide road-ways between the squares of houses and pens, like streets in a regular laid-out village; indeed, when completed and all white-washed, it will be a neat looking rural village, attractive to the world of passengers over the railroad, alike creditable to the lessors and to the liberality of the United States, in doing all it can to protect the importer of blooded stock against the spread of contagious diseases.

We have little doubt that the necessity of the future, an *abbatoir*, like that of Brighton for Boston, will be established here, and that these buildings for Quarantine are the nucleus or beginning of such an *abbatoir*, which will sooner or later be established as "butchering" within the limits of so large a city as Baltimore, will not long be tolerated.

We dined and were hospitably entertained by I. Francis, Esq., who has a nice residence on Catonsville avenue, a short mile from the Viaduct Hotel. Mr. F. has 30 acres of good land in a high state of cultivation as a truck farm. Here we saw an Alderney cow of much promise, a pair of superior fast roadsters, and some fine Berkshire hogs, among which was a young, beautiful boar from A. M. Fulford, Esq. We enjoyed at dinner the fresh vegetables, especially the delicious Bliss' American Wonder pea, and were forcibly reminded of the vast difference between the fruits and vegetables of our markets, compared

with those of the country gathered fresh in the same day's morning dew. We shall have soon, more to say of this section of the State.

For the Maryland Farmer.

Pure Water and How to Obtain It.

There is nothing more important to secure health than pure water, as it is now clearly demonstrated that much of the malarial trouble, typhoid fever and other blood troubles is due to water impregnated with organic matter which is capable of generating poisonous compounds. In the mineral kingdom fortunately few poisons are found, but from the vegetable and animal, there is no end to them, and when this matter decays, unhealthy compounds find their way into open wells by draining and finally into the system by drinking water from them. Few persons having open wells, especially in elevated districts, but have observed the foul taste during the warm season, although in winter when putrefaction is prevented by the cold, the water is generally sweet and pure. This foul taste and smell is due to organic matter, and when the water contains, as it often does, some sulphate, the organic matter decomposes the sulphate, and sulphurets and sulphureted hydrogen is generated, and this gives the smell of sulphur often found in well water. Again, this foul matter is found in water almost entirely free of smell and taste, and here comes the trouble, for often one thinks the water pure when it is really loaded with blood poisoning matter. To obtain suitable water for drinking, in many districts is entirely impossible, owing to the surface drainage reaching the well, which is merely a hole to draw water, as is often proven by a rain filling the well.

To secure pure water it is not necessary to sink a deep well, on the contrary, the water is generally purer (freer of mineral water,) when secured near the surface. Fortunately, sand and clay have a remarkable power of attracting organic matter, and when water filters through sand and clay only a few feet, all traces of this matter is drawn to the clay and sand, and cannot reach but a few feet below the surface; hence, when water is drawn from a water bearing stratum, only a few feet down will

be found free of it, and to secure it in this condition is the question that prompts me to say a word on the artesian well system, which simply means a pipe sunk down to this stratum, passing through the sand and clay which effectually protects the water from the contaminating influence spoken of, namely, surface drainage. before it undergoes the purifying process of filtration through the few feet of sand and clay. Often frogs, worms, &c., find their way in open wells and these generate poisonous matter. Artesian wells do away with any trouble of this kind.

Artesian wells may be classed of two kinds, flowing wells, and those where the water only rises to within pumping distance, the pump being attached to the top of the pipe.

Formerly, to sink these wells required machinery and skilled labor, attended with considerable expense, and more than many farmers and those living in the country could afford; hence but few have been sunk.

Great improvements have been made, and now in many districts where bad water is the rule, they can be sunk by an ordinary laborer and at a less expense than open wells, when a curb, bricks and pump are put in.

By a simple process patented by the Improved Artesian Well Company, of Baltimore, many persons with their own labor can secure good, pure water in a few hours. The pipe with a point on it, known as driver wells, have been found to do well in some districts, but in many districts are of no value whatever, owing to the impossibility of forcing the pipe through some clay. With the improved system the earth and clay is excavated ahead of the pipe, which admits of its being easily sunk, and as the excavated matter is constantly passing out through the small half inch pipe to which the drill and valve is attached, it is easily known when the drill has reached the proper point to sound for water. As full directions are given for sinking the pipe and can be easily worked by nine men out of ten, it is not necessary to give them here, but from the standpoint of having with two ignorant colored men, sunk some excellent wells near Rock Hall, Kent county, I can say the plan is a success and some are now enjoying pure water secured in a few hours, where it would

have been impossible to obtain it by any other process, owing to the abundance of marsh water which had to be shut off. In one marsh miserable water was found at 16 feet, and in great abundance this rested on 14 feet of blue clay. This was perforated and beneath it another abundant supply of water rushed up the pipe to near the surface, but like the first stratum the water was entirely unfit for use; a few feet of black sand was passed and at 43 feet another flow of water was reached which proved perfectly soft and sweet, free of all traces of organic matter and they have good water, which has never been known on the place before. A number of other such cases could be mentioned. The company owning the patent do not propose sending men out to sink wells, as the process is so simple and the cost so trifling, it would not pay; but are prepared to sell the right and all the necessary tools, &c., which are very few and not expensive. For an outfit for one to follow the business, I should think \$75 would buy all the necessary tools such as wrenches, pipe cutting machine, stock and dies, &c., &c. The two colored men spoken of soon became familiar with all the necessary work, although the business, like all others, requires some skill and brains. The company have advertised in your journal. A. P. S.

Rock Hall, Md.

DR. ROBERT WARD, OF ENGLAND.—

It affords us great pleasure to inform our readers that one of England's most learned and skillful veterinarians has come to reside in Maryland, fixing his residence in the city of Baltimore. In our present issue he has favored our readers with an interesting article from his pen. His articles will obtain for him the good opinion of all interested in the welfare of our live stock. We allude to Dr. Robert Ward, Fellow of the Royal College of Veterinary Surgeons of England, who has won a high reputation not only as a practitioner, but as an author or writer on veterinary science and comparative pathology. We are pleased also to inform our readers that we have been promised by him a series of articles from time to time.

**"Burnside Park," the Country Seat
of Mr. Samuel M. Shoemaker,
Baltimore, Md.**

On a pleasant evening of the past month, in company with W. H. Oler, Esq., who has "Jersey on the brain," I visited Mr. Shoemaker at his fine country seat, situated in Baltimore county, about 14 miles from the city by rail or carriage. Mr. S. met us with his usual cordial hospitality, and after a slight rest we entered upon the real pleasures of our visit by a regular survey of the premises and tramp over a portion of this splendid estate of five hundred acres of fertile land, all in nice order, and showing in the entire management, the mind of a skillful manager of real estate, for the purpose of both profit and pleasure. We really did not know before that there was so superior a homestead near our city. The lawn or grounds around the dwelling comprise about 75 acres in well set turf, forest trees, shrubbery and flowers, with a winding road leading to the mansion. There are several very extensive green-houses, &c., filled with choice plants and flowers, which our limits will not allow to be particularly described. The whole place is under the care of Mr. Oscar Rickelsen, whose work shows that he is a highly intelligent and capable manager.

Along the road and in groups on the lawn we saw trees of various sorts, horse-chestnut, Linden, Maple, Norway spruce, deciduous and evergreen, that had been removed after they had reached the size of 10 or more inches diameter of trunk, and every one seemed as vigorous as if they had never left their native spots. The view of the lawn and the far surrounding country was fine from the front piazza. This is chiefly a Jersey stock farm, and we were first shown to milch cows of great excellence, among which was the celebrated cow, "Princess 2nd," for whom Mr. S. paid, a year ago, \$4,800, at that time the

highest priced cow in America. Next we saw a large number of Jerseys of different ages and sexes, but the grand sight was the famed "Khedive's Primrose," not yet three years old, and yet standing in public estimation as the Queen of cows for blood and performance over all, having cost her present owner \$5,150 at auction, lately, in New York. This tremendous price we were assured by Mr. S. did not cover her original cost in Jersey, and her transportation. She was considered at her native home as the best 2-year old ever owned on the Island. But we yet had to see "St. Clementaise," a grand, old fashioned cow, admired by every beholder for her magnificent udder and fine escutcheon; who, when three year old made 15 pounds 12 ounces of butter in one week. She is now 12 years old and in calf to Pedro, having had a heifer calf the 28th of January, 1883. Notwithstanding her age and appearance, such is her reputation and hearty condition, Mr. S. had lately to pay \$2,600 to catch her from envious bidders at the New York sale of Cooper's stock. Mr. S. can certainly show the highest priced, and among the finest Jersey stock in the world and a farm as well managed and as fertile as any such sized farm in the State of Maryland, to which it is a great honor. We learned that 60 hands were employed on this elegant estate. No better way can gentlemen of large capital employ their funds for public good and individual benefit. It is an example worth imitation.

So pleasant was our visit we took small note of time. I had some work to prevent my friend, Oler, who became so infatuated with Primrose, from committing a serious indiscretion, by taking home with him, fairly or otherwise, the high priced darling. I wish space allowed me to do more justice to "Burnside Park." W.

Mother Swan's Worm Syrup.

Infallible, tasteless, harmless, cathartic; for feverishness, restlessness, worms, constipation. 25c.

THE MASSACHUSETTS PRESS ASSOCIATION, returning from their southern trip, halted for one day to glance at this city, were entertained by the Press of Baltimore, and given a boat excursion down the bay. A deputation from the press and another from the Merchants and Manufacturers' Association were present at the steamer Ferdinand C. Latrobe, to receive and make welcome the guests. The excursion was a delightful one, and the collation all that could be expected. Our guests seemed to be much gratified. It was a source of much pleasure to us to be present on the occasion, and to meet so many old friends from the north, among whom we found Mr. E. H. Elwell, the accomplished editor of the Portland, Maine, *Transcript*, so long and favorably known at the North and over the whole country.

A. W. CHEEVER, Esq., Agricultural editor of the *New England Farmer*, while in this city as one of the Massachusetts Editorial Association, called at our office and afforded us a very pleasant interview.

HORTICULTURAL.

For the Maryland Farmer.

Ozier Cultivation.

For the past five years my "American green" oziers have been affected by an apparent blighting of the tops, occurring some time between the middle of May and the last of the month. Many of the shoots quite die out; others sprout below the point of injury, and whether they bifurcate or not make an inferior willow. The cause was not observed by me until this year and was found to be a large black insect, resembling somewhat a bumble bee, having, however, a much longer body, and not so pronounced in its methods of flight.

Heretofore they have attacked but the one kind, except last year when they attacked the golden willow, or at least it had the same appearance. The depredators come in very great numbers and tarry a very short time, long enough however to

destroy about one-half the willow shoots of the American green. Later in the season, the willows again have exhibited the same appearance but not to the same extent.

Neither the Welsh nor the Lemley have been attacked. Although they are slower than the American green in getting a strong set, it seems to me that they should be preferred by persons in this region who purpose putting land in willows. They both furnish excellent cuttings, quite equal to any other in this part of the world.

D. A.

Ammendale, Md., June 8, 1883.

For the Maryland Farmer.

Seeding for Irish Potatoes.

The question frequently arises, "Who shall decide when doctors disagree?" and seems to be presented with additional force in consequence of the discussions that are now going on in the agricultural papers. Dr. Sturtevant, the director of the New York State Experimental Station, has, by experiment discovered a singular condition that appears to affect the productiveness of potatoes. From the stem end of each potato there appears to spring a sort of pith so to speak, that runs through the tuber and branches to each eye, thus forming the appearance of a tree with its branches spreading, but like different varieties of trees, in different varieties of potatoes branching differently, or at a different angle from the main stem. It is claimed that by cutting the tubers to one eye, and so as to preserve that so-called pith line entire to the main portion of the potato the yield is considerably increased.

As what would seem to be opposed to this doctrine, comes the result of a series of five experiments by Prof. J. W. Ganborn, on the style of seeding, in which he claims a great advantage in favor of planting potatoes *whole*, showing by a tabulated exhibit the results in each experiment of seven different modes of planting.

Samuel Miller, of Missouri, to the end of increasing the crops of potatoes when seed is new and high priced, plants the tubers in boxes early by a stove and starts the sprouts, and when three inches in height, they are removed and set out, and the operation continued several times.

B. P. Hanan, of Kansas, reports that when the Early Rose first came around, he purchased two pounds and put them in a hot bed, and when they had sprouted three or four inches above the ground, cut off the sprouts even with the surface, and set these sprouts in the hot bed, continuing to repeat the operation till into May, and the soil was warm when they were carefully lifted and set out, and the result was fifteen bushels of nice potatoes in the fall.

Now, here seem to be conflicting opinions and practices regarding the mode of seeding, but it is extremely doubtful if farmers will ever return to the old fashioned mode of planting potatoes whole or even cut in two.

The main point is to obtain a healthy germ of the future plant as a commencement of growth and it is extremely doubtful if any particular portion of the potato tuber is necessary. If a tuber is planted whole with the large number of eyes that are crowded into a small space, there must of necessity in the struggle for existence be a survival of only the most powerful at least so far as any future benefit is concerned, and if the number of sprouts that can grow with any degree of certainty is reduced to a sure thing by cutting, it is much better than to throw away the seed unnecessarily, and from experiments with the sprouts alone it would appear as though the tuber itself held no importance further than that of containing the real germ of the future plant. This has been partially substantiated by the use of fresh potato parings which are said to be equally as valuable for planting purposes as where a much larger portion of the potato was used.

Where, too, simply the eyes of the potato were gouged out and planted, results have been satisfactory.

With a new soil, *i. e.* one that has not been under cultivation for a long period, or one, say, that has been in pasture, or at rest for a term of years, well manured with manure thoroughly incorporated with the soil, and the germ of the potato, with or without the tuber, and little fear need be apprehended regarding the productions of a satisfactory crop.

WILLIAM H. YEOMANS.

Columbia, Conn.

"Rough on Rats."

Clears out rats, mice, roaches, flies, ants, bed-bugs, shunks, chipmunks, gophers. 15c. Druggists.

For the Maryland Farmer.

Evaporation of Fruit

BY J. W. DARROW.

Fruit culture properly conducted is a profitable business, whether we consider it with reference to the sale of the fruit in its fresh or dried state, there is profit in it, and especially so if there is ready access to good markets. But there must always be, in fruit districts, more or less fruit that is not disposed of in its fresh state, owing to want of a market or to decay in the fruit or for various other reasons. What shall be done with it? is the question. To undertake to "dry" it after the old-fashioned method is impracticable when there is a large amount to dispose of, and that in the shortest way possible, on account of its perishable nature. The only resort, or at least the best resort, is evaporation.

There may be an impression on the minds of some people that the evaporated fruit is not as good as that dried in the sun. Men who have had extended experience in the business, report at quite the contrary. Instead of there being a loss of valuable properties there is an increased evaporation being essentially a ripening process, a farther developing of the saccharine properties. Instead of a process of decay following after complete ripening, the maximum development of the saccharine qualities is secured and the water evaporated. Moreover, the cell structure is not destroyed so that when the evaporated fruit is placed in water it returns to its former form and constituency.

We must not, however, confine the usefulness of the evaporator to orchard fruits alone. By its use we may prolong the season of many vegetables, as squash, pumpkin, sweet corn, tomato and the like, into the winter, and have them almost as fresh as when taken from the garden.

So wide is the field of farm products that may be covered, that from the early summer until along in the winter, the evaporator may be brought into almost daily use. Thus, much that might otherwise go to waste, is saved and converted into salable products.

This leads us to a question which is after all, the test with many, "Will it pay?"—This must depend on two or three considerations, which are, however, under the control of the fruiterer,

1. One must have the fruit at hand when it is wanted. He must have orchards of his own or he must know where fruit can be obtained, in order that he may keep the evaporator in operation.

2. He must have first class products in order to get first class prices. Perhaps these are the most important considerations. It is said that 1000 bushels of apples will yield 5000 pounds of evaporated fruit; 500 bushels of black-cap raspberries have made 5000 pounds of dried fruit; an acre of sweet corn has yielded about 900 pounds of evaporated corn, and so on. Multiplying these amounts by the price of such products in your market, will show you what your receipts therefrom would be, and the expense of purchasing and running an evaporator deducted, would in a majority of cases, leave a large margin for profits. The best answer to the question "will it pay?" is found in the fact that the industry is becoming more and more extended every year.

Chatham, N. Y.

The Soja Bean.

From the annual report of the North Carolina Experiment Station, we learn the Soja has given great promise of excellence in that State as a feeding stuff for stock. It seems adapted to almost all soils. It yields a much larger amount of feed than the cow pea, so popular at the South. It can stand cold, damp, and generally unfavorable weather exceedingly well. In the Southern States, to which it is best adapted as it requires a long, warm season for its development, it should be planted about the first of May, in ordinary seasons. The beans are sown thinly in shallow rows, eighteen inches apart and covered about half an inch. The plants will blossom in July, and the beans ripen in September. A single plant will bear from 30 to 300 pods, each pod containing from one to five beans. The straw and bean have both been analyzed at the Station, and regarding results the report says:—

* * * * *

"The conclusion from this inquiry into the chemical nature of the Soja bean and its straw must be that,

"1. The bean itself is one of the most nutritious known to us, quite unequalled in the amount of fats it contains, and con-

taining at the same time a very large amount of proteins.

"The ripe plant yields a straw fully equal to common hay, in composition; while owing to the fortunate property the beans have of maturing and drying after the plant is cut, a still more superior hay may be made from it by harvesting the plants just when the pods are fully developed and still green."

GOOSEBERRIES.—Large and early gooseberries command very good prices in the spring, as they are about the first "pie material" which makes its appearance. Another advantage in favor of this fruit is, that it brings in *early money*, which is quite an item to most cultivators of the soil who usually have to wait until mid-summer for their first dividends from the farm. We would not advise planting largely, but a patch of a half acre, will, if cared for as it should be, bring in a very satisfactory profit. The gooseberry requires a strong rich soil, and should be well manured each spring. It should be thoroughly and constantly cultivated (except when in bloom,) and the bushes must be pruned each season, so as to encourage new and vigorous shoots, as it is only on such wood that the finest fruit is produced. The Houghton seed has done well with us as a market sort.—*The Market and Garden.*

The following is from *Farm and Garden.*

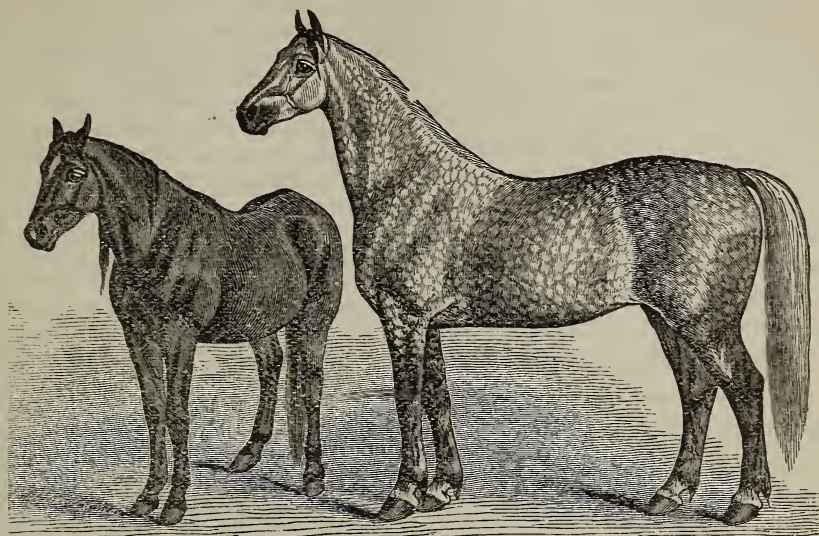
DESTROY ALL FALLEN FRUIT.—All fruit that falls to the ground should be destroyed, in order to thin out as many insects as possible. One of the best instruments for this purpose, which is not patented is the hog. Give him a chance and he will do his work well. For companions, the poultry would be excellent.

FRUIT PARINGS.—These make good jellies and should not be wasted. Even the cores of apples can thus be utilized.

OVER-RIPE FRUITS.—Keep over-ripe fruits for use at home, for it will be a source of danger if sent to market with that which is intended for shipment to distant ports.

FERTILIZERS FOR FRUIT TREES AND VINES.—Good hard wood ashes and finely ground bone is the cheapest and best. Fresh stable manure is not desirable, but good rich compost is excellent.

LIVE STOCK REGISTER.



Pony Mare and Colt, by imported "Success." Weight of mare 750 lbs.; colt 1,200 lbs.; sire 1,700 lbs.

Judicious crossing of distinct races of the different breeds of stock, we have always advocated as the best policy for the average farmer. The keeping an improved breed pure and up to the highest standard is not only necessary but highly commendable, yet, to do so, not only capital is indispensable, but enterprise, good judgment, taste and a pride in that particular pursuit. The average farmer has, as a rule, no capital to risk in such a costly undertaking. He has to improve the stock on hand by crosses, and some of these appear to be violent, yet we have many instances of inestimable value. Some breeds do not cross well; others do. Our best mules are hybrids by crossing jacks with the largest and well bred mares. The cross of a Norman-Percheron stallion on small mares seems to fill the bill in the horse line, and by way of illustrating our views on this subject, we have obtained from Mr. N. W. Dunham, of Wayne, Du Page county, Ill., a life picture of the above mare and her colt,

In his illustrated catalogue of the great number of this class of horses he imports yearly and breeds, we find the following history of the above picture and comments upon the valuable qualities of the Norman-Percheron for crossing upon small, common mares.

"This mare is owned by Ira Albro, Wayne, Ill. Has produced eleven colts by Percheron sires, some of which have weighed 1,400 lbs., and none less than 1,100 lbs. at maturity.

"The success that has attended the crossing of Norman-Percheron stallions upon small mares has led to their introduction into the West and Southwest to breed upon the Texas broncos and Indian ponies. The success has been so extraordinary that the United States Interior Department has begun the introduction of Percheron stallions for the use of the Indians to cross upon their ponies, and have bought several stallions of me for that purpose.

"There is no way that worthless small mares can be made to produce such results as by this cross."

There are other large breeds imported, such as the "Cleveland Bays," "English

Shire or Cart Horse," "Canada-bred Draft Horse," &c., that cross well upon most of our common mares, but the Norman horse seems, for general farm and road purposes such as plowing, quick draft of heavy loads, docility, easy keeping, size and grand appearance, to be particularly well adapted to the purpose. Judicious *crosses* have given through patience, skill and time all the best breeds known in the various sorts of domestic animals. Being a favorite subject of thought we will, when we have more leisure, revert again to this interesting subject of cross-breeding for improvement of stock belonging to small farmers.

For the Maryland Farmer.

Contagious and Infectious Diseases and Preventative Measures.

BY ROBERT WARD, F. R. C. V. S.

It being asserted that Pleuro-Pneumonia Contagiosa is in our midst at this present time, shows to us most clearly that the measures adopted for its suppression have not been crowned by success, and this fact should lead us to cogitate with the view of ascertaining what more can be done till some *other* and more *effective* measures are developed for the stamping out of this most insidious and dreadful malady.

It must, however, be borne in mind by the breeders, dairymen and dealers alike, that it can hardly be expected that the Legislature can, by all its Acts, stamp out this *one* of the many plagues affecting our Neat Cattle, unless they give their hearty co-operation, and moreover, unless they do this, the Legislature may find it expedient to pass most stringent Acts and introduce severe measures for this purpose, much to the hindrance of the business referred to.

Again, a number of veterinarians will have to be requisitioned as inspectors and extended powers given to them, all this tending to augment the expenditure.

We, however, fail to see a reason why there should not exist on both sides the strongest determination to stamp out lung plague, and our desire is to see this happy condition of things brought about,

To achieve this end the first duty is to report instantaneously the earliest symptoms of its developement, which are marked and well known to the general observer, so that the authorities may make a careful investigation at once, and adopt measures to prevent the extension of the disease, which measures are best understood by those who are trained and selected for this special duty, and a strict adherence to the rules and regulations laid down should be observed.

The second duty is, attention to the prophylactic measures which modern science has given us, the laws of hygiene, cleanliness and dietetics are patent, but what we desire to direct attention to is, the inestimable value of *inoculation* as a preventative measure.

In Europe and the British colonies, the value of this simple operation is held in the highest estimation, and universally adopted with the happiest results, for when due care is exercised the risk from the operation is almost *nil*, whilst the *immunity* of those animals operated upon, to the ravages of this dreadful scourge is placed beyond the shadow of a doubt.

Well authenticated reports of the immunity of animals operated upon, to the virus of lung plague, do not alone stimulate us to urge dairy farmers and breeders to avail themselves of this invaluable preventative to its ravages, but our personal experience fully establishes the fact, for we have inoculated a large number of cows, with the most happy results, and in infected districts.

Scotland was, at one time, infected with this disease. In Edinburgh the ravages were alarming and continued so for some time, until Mr. Rutherford, a skillful veterinarian, who had witnessed the value of inoculation in Australia, came to the rescue and persuaded the dairy farmers to have the operation performed, and the disease has been most effectually stamped out. The "*rara avis in terris*" in Edinburgh at this present is, the non-inoculated dairy cow.

In the next issue the *modus operandi* will be explained, and that good may emanate from these remarks, producing a like result in Maryland is the earnest wish of

ROBERT WARD.

Baltimore, June 14, 1888.

NOTE:—Dr. Ward has, after some deep

consideration, severed himself from his native land, family ties and professional friends to take up his residence in Baltimore, therein and around to make himself useful in the advancement of veterinary science, with the object of placing the profession here on a sound basis. He fully realizes the difficulties surrounding his enterprise, but feels confident that his zeal, fervor and application will end in success. He trusts that encouragement may develop so that he may end a professional career began a quarter of a century ago, in active professional labor, and in the end see the veterinary profession laid on a sound basis in Maryland—Baltimore in particular.

Shropshire Down Sheep.

Though but recently recognized as a distinct variety, none of the English types have advanced more rapidly into public notice and favor than the Shropshires. Their size, rotundity and general carriage commend them to the notice of the casual observer, while they "fill the eye" of the critical judge and experienced breeder so completely as to make for themselves friends wherever shown.

The history of the Shropshires when traced toward their origin, becomes enveloped in that maze of uncertainty which surrounds the "fixing" of the types of a majority of those domestic animals upon which English breeders wrought such marked improvement. While all authorities agree that the foundation was a so-called native sheep of Shropshire, and perhaps Staffordshire, described as black or brown, or spotted faced—and conspicuous for the flavor of their mutton—There is not the same agreement as to the crosses and lines of breeding resorted to. It seems certain however that the Southdown and Leicester were both heavily drawn upon, and the merits thus secured afterwards intensified by inter-breeding from selected animals. The Shropshire of today retains the black face and legs of its ancestors, as also the well flavored mutton while in respect to size, maturity and fleece bearing, it has been as thoroughly modernized as any of the meat producing animals of the present century.

The Shropshires have made friends rapidly since their introduction into the United States, and seemed destined to a still wider acquaintance, as their symmetrical forms and stately carriage make them conspicuous in the sheep rings of every important exhibition. To them has been awarded the sweepstakes prize at the Chicago Fat Stock Show, for the season of 1881 and 1882, and their continued presence in the rings of mutton producing sheep will insure a high standard of merit in the prize winners of the future. From "Sheep, their Types and Characteristics," in *Breeders' Gazette, Chicago*.

Co-operative Stock Raising.

A vast number of farmers are unable to raise the money to invest in stock that they wish, and that their intelligence and sagacity tell them they ought to have. Quite as large a number are not able to utilize the services of a costly sire because their flocks or herds are not sufficiently large. But these are not good reasons to still continue to breed mean little scrub horses or cattle, or indeed any other farm stock, because other methods are within their reach. Horses of superior size and merit, stand, it is true, in many counties of the State, and their services may be had for a comparative trifle, and, indeed, ought to be had by every farmer having a mare to breed. But this is not the case with other stock such as cattle and sheep, or even hogs, though it might and could be. By clubbing together, however, those who cannot individually afford, or whose requirements are not sufficiently numerous to justify the expenditure called for in the purchase of a first-class animal, can secure all they need, not for themselves only, but as well for all their surrounding neighbors. It only needs that a few shall get together, determine what they want, and make the necessary advance of money and then make the purchase. By thus clubbing together the farmers of every township in the State could secure sires that would improve their stock vastly in the course of a few years, giving them better horses, finer cattle, more and better wool and mutton and heavier hogs. This is the season in which to make the necessary arrangements, and they ought to be undertaken at once.—*Chicago Tribune*.

The quantity of food needed by stock varies even amongst animals of the same age and breed, and it necessarily varies to greater extent among animals of different breeds. Upon this subject a farmer in England, says it is sufficiently correct to reckon a sheep consuming twenty-eight pounds of green food, an ox or cow 150 pounds, a calf forty pounds, and a yearling eighty pounds daily. At this rate an ox or cow consumes as much as five sheep. The latter will require 10,220 pounds, or nearly five tons apiece, the former 54,750 pounds, or nearly twenty-five tons of green food for its yearly maintenance.—*Ex.*

BREAKING COLTS.—The future conduct of the colt depends much upon gentle training in his first lessons of subjection. Whatever vices colts contract, through carelessness or incompetency of the breaker, will last as long as they live. It behooves the trainer to be on his guard against those evil propensities that may destroy their future usefulness. In order to avoid the breakers that have wrecked the fond hopes of many sanguine breeders, by destroying their favorite colts by brutal treatment, great care should be exercised in selecting a competent trainer, with an even temper and good judgment.

A MARYLAND JERSEY COW.—Mr. T. Alex. Seth writes to the *Country Gentleman*, under date of Baltimore, May 21st: "Value 2nd 4422 dropped last night a fine bull calf, sired by our Coomassie bull, Island Valeur 5514. Notwithstanding we have been compelled to milk her regularly for the past ten days, during which she has given as much as 25 quarts per day, her udder yesterday afternoon was measured by some visitors and found to be 65 inches in circumference, and after the calf had taken his first meal she milked 29 pounds. Her udder is perfect in shape, running far forward and up behind and held firmly up, a vessel and not a bag."

T. S. Cooper's Sale of Imported Jerseys.

At the sale of Jerseys imported by Mr. Cooper, in New York city, there was a large crowd of buyers from all parts of the country, and at public vendue 111 animals of all ages, brought the extraordinary price of \$112,500, an average of \$1,014 per head.

THE FARMER'S DOG.—The *Farmers' Review* gives four reasons why the regular shepherd dog, the most useful of canines, should be called the "farmer's dog:"

1. Because, if properly trained, a shepherd dog is worth three men at driving a herd of cattle, sheep, hogs or poultry.
2. They are vigilant guardians of their master's property, always watchful night and day.
3. They are kind to children; know who treat them well; and,
4. They are excellent ratters and generally make their master's premises an unhealthy place of residence for all vermin.

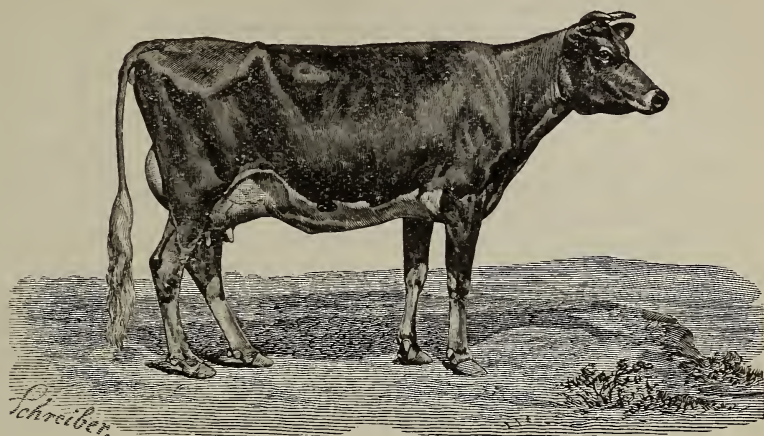
PLEURO-PNEUMONIA was assigned as the cause of the death of some cows at Washington, lately, but the veterinarian of the Agricultural Department, Dr. Salmon, avers, after an autopsy, that there was no internal evidence of contagious pleuropneumonia.

The Santa Fe, N. M., Tertio-Millennial Exposition.

This remarkable exposition of the oldest city in America, begins the 2nd day of this month and closes August 2nd, 1883. W. W. Griffin, President; Arthur Boyle, Secretary; Chas. W. Green, Gen. Manager. Extensive preparations are being made at Santa Fe, New Mexico, for the accommodation of the thousands of guests who are expected to visit the Tertio-Millennial, third of one thousand years, Anniversary Celebration, during July next. It is the oldest city in the United States and in it leading features peculiarly foreign. It is probably the only city in the world where three distinct civilizations are represented in the present population. The programme, which is "immense" in the extent and variety of attractions offered, combines features of all three, so arranged that parties visiting at any time during the month will have opportunity to witness them all. Send to the General Manager at Santa Fe for full particulars. Santa Fe will be the centre of attraction for the surrounding country during the month of July. The celebration of the 333rd anniversary combines a remarkable list of novelties, and no one who attends can fail to be entertained. It will be a rare treat to every intelligent person.

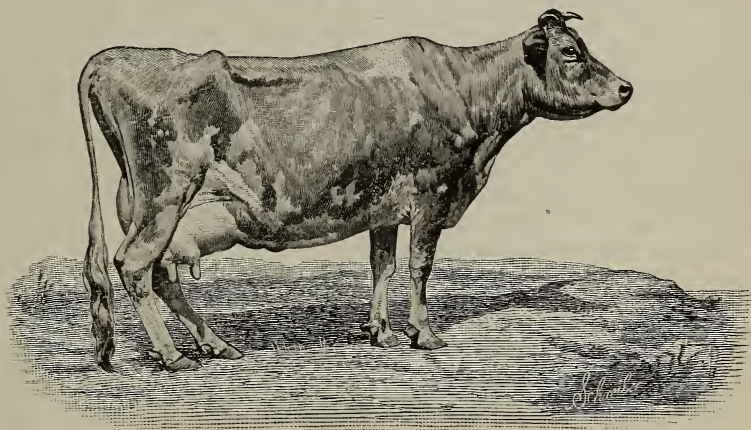
Khedive's Primrose, F. 2228—H. C. 18213 A. J. C. C.

WINNER OF FIRST PRIZE OVER ALL JERSEY, 1882.



THE PROPERTY OF SAMUEL M. SHOEMAKER.

Imported St. Clementaise, F. 917—C. 18163 A. J. C. C.



THE PROPERTY OF SAMUEL M. SHOEMAKER.

Above we give illustrations—taken from life by photograph—of two of the most recent purchases of Mr. Shoemaker, referred to, on another page, in the notice by "W." of the "Burnside Farm." In the sale-catalogue by the great importer of Jersey cattle, Mr. Cooper, after detailing their pedigrees in full, says of Khedive's Primrose:

Bred by Charles F. Dorey, Trinity; born August 1880; imported November 20, 1882; dark fawn; white under barrel, on both fore and right hand fetlocks; white switch and tongue; one of the loveliest of heads, with exceedingly yellow in-curving horns; very prominent eyes; thin neck, sharp withers, straight line, broad hips; slim

tail, with heavy switch; deep in body, exceedingly thin, soft mellow skin, very fine in bone; a model udder, with good-sized and well-spread teats, very large and prominent milk veins; curveline escutcheon with the much valued epijonctif mark below the vulva,"

Of the famous old cow "St. Clementaise" it says:

"Bred by Philip Baudains, St. Clements. Born in 1871; imported November 20th, 1882; grey fawn; saddle on withers, white 7 on right side between hips and setting of tail, white switch, yellow tongue, nice head, broad forehead, large prominent eyes, slim neck, excellent back with pointed withers, broad across hips, slim long tail, low on the leg, with an immense body, being both wide and deep, very rich soft mellow skin, magnificent udder, with large well shaped teats, milk veins the largest and most prominent we have ever seen, splendid Poidevin escutcheon."

Peter Henderson & Co., seedsmen and florists of New York City, are well-known in this country. Much of their success is undoubtedly due to the industry, energy, and ability of the founder and yet active head of the firm—the well-known horticultural writer and author, whose success in life has been due solely to his own exertions. Hr. Henderson's prosperity is undoubtedly due in a large degree to his writings, which are condensed and practical to an unusual extent, and many thousands to-day in every part of the country engaged in gardening pursuits acknowledge that their success is due to the author of "Gardening for Profit" and "Practical Floriculture," works that have attained a sale altogether unprecedented in horticultural literature, either in this country or in Europe. The firm's seed establishment is in Courtlandt Street, New York. It is estimated that not less than \$1,000,000 has been invested in glass structures for the growing of roses alone in the superb of our large cities in the past five years—that for New York alone being estimated at \$250,000, while if we take all the departments of horticulture, the amount is probable four times as great.—From the New York *Commercial* of Jan 3, 1883.

Maryland Agricultural College.

The examinations at the Maryland Agricultural College, were concluded Wednesday, the 27 of June, upon which evening the professors and students were invited to an entertainment given by the president at his residence. The next day Thursday the 28th, the commencement exercises took place. President Smith delivered an address and the diplomas to the graduates, after which the contest for the declaimers medal, presented by professor Warfield took place, followed with an address by that gentleman on "American Citizenship." The exercises concluded with a pleasant entertainment, accompanied with vocal and instrumental music. We will publish President Smith's address to the graduates in our next issue, having no space to spare in this number of our journal.

Novel Adornment of Buildings.

Manager Fort of the Academy of Music, of this city, in his improvements for the summer season of comic operas, has had some of the windows decorated by Smith's patent process in imitation of stained glass. The figures delineated are in the richest transparent colors, and the whole decoration is in exquisite taste. It is understood several churches of the city and one of our principal hotels, as well as a number of private residences and business places have given orders for this beautiful window decoration. It is almost impossible to detect the difference between this and the costly stained glass. Messrs. Wm. Wirt Clarke & Son, of Baltimore, are the general agents for Maryland.

E. Whitman, Sons & Co. have just received a car load of wide tread Western wagons of various sizes, in addition to the large stock of farm wagons always on hand, also several car loads of the barb wire fence. This house is now the largest dealer in these goods in the Southern or Middle States.

LADIES' DEPARTMENT.

Chats with the Ladies for July.

BY PATUXENT PLANTER.

"Too Much of a Lady."

"When Eve in the garden was plucking the rose,
 And enjoying the Eden walks shady;
 I wonder if ever she turned up her nose,
 And sighed, 'I'm too much of a lady!
 Too much of a lady, dear Adam, to work,
 A helpmeet was made to be petted;
 You keep things in order, I really must shirk,
 Though the fact, dear, is deeply regretted."

"To-day she has daughters whose delicate hands
 Are wholly unfitted for labor;
 It almost fatigues them to flutter their fans
 When they languidly call on a neighbor.
 Their mission on earth is to gossip and dress.
 And live upon life's sweetest honey,
 And they haven't a bother or trouble unless
 Their masculine bank fails in money."

In continuance of my Chat for last month upon what I consider as "Higher Education" for women, I must first be allowed to protest against any insinuation that I am losing faith in woman, or am capable of thinking or writing a thought derogatory to the fair sex. If I have an ambition at all, it is to be considered woman's champion, and ever as ready to defend her high character, as were the knights of old to draw lance in defence of helpless beauty, or to right any wrong inflicted on injured innocence. So much for what has already been said, and in further explanation of future remarks, as also of the stinging lines above quoted, which I find so well said by another, that I repeat them as appropriate to a portion of what I may say herein.

It cannot but be said that there is too much truth in the last verse of the above quoted stanzas. All the faults therein hinted at are due to a want in the education of our daughters—the receiving of that *Higher Education* that leads to a proper appreciation of the duties that strictly belong to the sex as distinguished from the bolder and rougher requirements of man—the natural and pre-ordained protector of the whole sisterhood.

While I rejoice in the glories and triumphs of talented and ambitious women, and would at all times lend a helping hand to every effort by which her advancement in social and educational progress can be assisted, I am candid enough to say that I am not so entirely dazzled by such dawning prospects for the *few*, as to lose sight of the great mass of my sisters who have no such aspirations for fame, but who feel that they are simply made by an all-wise Creator to become the helpmates of the sterner sex. It is to such

that I would call attention of my lady friends, and calmly ask if *such*, so great a majority of our girls, are to be forced to become perfect in all the sciences and *ologies* that their more favored, greater talented and high ambitioned sisters aspire to?

For the mass of girls who do not desire a higher education, such as is understood vulgarly we propose a *Higher Education* in those essentials to comfort and prosperity, and which lead to the happiness of households.

The girl who may study astronomy for years, and never know where to look for the North Star or define intelligently to her hearers the outlines of the Ursa Major on a starry night, or be able to comprehend the reason why astronomers have named a certain belt of stars—the Milky Way—yet may sing a lullaby far sweeter, paint on canvas or cloth with needle and silk lovelier flowers, or cook a nicer dish than her more talented sister. Let there be higher education for all, to suit each individual intellect and aspiration. No school is perfect that does not adapt its rules and studies to the various abilities and well marked intellectual powers and inclinations of its pupils. To say that twenty girls, picked up everywhere, shall all be in a class to study the same branches, is absurd. After a trial for a short time the various inclinations will be developed. One will show a great talent for music, another for science, another for the languages and another for drawing, &c.

Let whatever be the bent of mind or peculiarity of talent, as soon as it is decidedly ascertained by the wise teacher or watchful parent, be fostered to the uttermost as an auxiliary study or accomplishment. The great rudiments of education, reading, spelling, writing, grammar, geography, and history should be the main features of study by *all*, and they being paramount studies, the other higher branches, the sciences, the arts and *ologies* may be super-added according to the time and inclination of each pupil.

Too great has been the neglect of the foundation heretofore, and hence pretty super-structures have too often been built upon "airy nothing," and hence such flimsy educations in our fashionable schools have resulted in disappointment to parents, mortification to the pupil, and incurred the ridicule and contempt of every sensible person to whom is bared this sad waste of time, money, and frequently of health. I hope, in other Chats, I may be allowed to speak my humble thoughts as to practical education, being in most cases really the *Higher Education* that is wanted.

For the Maryland Farmer,

MAY 19th, 1883.

There has been an unavoidable delay in our correspondence, resulting from a variety of causes, and as it has been said before, an apology makes as poor a letter as it does a dinner, we will be content with the statement given. Being through with the breakfast this morning, we enter the sitting room and finding our Easy Chair in front of the window facing the lawn we regale ourselves with a restful glance at the prospect that greets the eye. Beyond our own little domain we see like a map spread out before us, field after field of grain, in green perspective meadows, skirted with woodlands whose waving foliage varies with every hue of blossom, bud and vintage, and as we look out upon this scene, so resplendent upon this balmy May morning, we wonder if the excursionists to Niagara will find anything more beautiful to gaze upon than this lovely valley of ours which we consecrate with the name of "HOME."

While we wish them "good speed" and envy them none of their privileges, we begin as usual when left entirely alone, to search out some source of amusement, profit or pleasure. It is true, the work basket is right before us, piled high, the hose and linen seem vying with each other for the ascendancy, accumulated during last week's cleaning, weeding herbs, and flower and strawberry beds. But we are weary of the incessant toil and claim a respite, not as in olden times by drifting into dreamland, but just as the humor takes us, we will write to our old and valued fireside friend, the MARYLAND FARMER. On the table before me it is piled up in heaps, and upon opening the February number, I find my "Lady Farmer" looking for letters from the dear lady friends. In it she also says, "They come very seldom to "Patuxent Planter's" receptions, true, he is fully competent and gives us better letters. Aye, there's the rub, yet we pine for the ladies." So do I, and prompted by the fellow feeling that "makes us wondrous kind," will always be found in the breach so long as the courteous editor will indulge the fancy.

And now the rain comes pattering down and our thoughts wander off to the excursionists again and their possible disappointment, but they are instantly recalled by the fragrance of the apple blossoms, wafted to us on the balmy air, suggestive of rest, comfort and home.

It was the literary department of the MARYLAND FARMER that drew my attention to the practical part of it, and in the latter I found many useful hints in house garden and poultry raising. Yet, I am not willing a woman's life should be all toil and never brightened by the flowers of poesy and song which Mr. P. P. so kindly and courteously strews along our pathway. While to do good and communicate is men's work and woman's highest mission upon earth, yet a flower garden or bed of herbs would yield anything but a sweet smelling savor if the physical toil overtasks the strength, or the mind becomes withered as a potsherd either in the greed of gain, or in obtaining the necessities of life.

These thoughts are suggested by the unprecedented scarcity of edibles during the past win-

ter, but with the opening and advance of spring our thoughts revive, and unless those poultry pests, the chicken hawks, are more voracious than ever, we shall yield to the genial influence of spring chicken for dinner, with a rich dessert of luscious strawberries, all the result of our labor, before the printer's ink is dry which proclaims our success to the readers of the MARYLAND FARMER.

Shenandoah Co, Va.

M. A. G.

Duties of a Married Woman.

In *The Household*, which is a supplement to the *Detroit Free Press*, we find a neat communication from "Patapsco," in which occurs the following, which we like so much we give to our readers in the hope that this agreeable writer, so close to our home, may become one of the company of lady friends who honor Patuxent Planter by taking part in his monthly CHATS.

"I found, eight years ago, when first married, two articles, and put them in my bible, that they might be a daily reminder of my duty, and I think it is in a great measure the influence of these sentiments that has kept the storms and nearly all the clouds from our matrimonial sky. I want to recommend the prose portion particularly to married people, and the poetry for the whole family.

ADVICE FOR THE MARRIED.

'Preserve sacredly the privacies of your house, your married state and your heart. Let not father or mother, brother or sister, or any third person ever presume to come between you two, or to share the joys and sorrows that belong to you two alone. With heaven's help build your own quiet world, not allowing the dearest earthly friend to be the confidant of aught that concerns your domestic peace. Let alienation, if ever it occurs, be healed at once. Never let to-morrow's sun still find you at variance. Renew or review the vow at all temptations; it will do you both good, and thereby your souls will grow together, cemented in that love which is stronger than death, and you will become truly one.'

"OUR OWN."

'If I had known in the morning
How wearily all the day,
The words unkind that troubled my mind
That I said when you went away.
I had been more careful, darling,
Nor given you heedless pain;
But we vex our own with look and tone
We might never take back again,

'For though in the quiet evening
You may give the kiss of peace,
Yet it might be that never for me
The pain of the heart shall cease;
How many go forth in the morning
That never come home at night!
And hearts have broken for harsh words spoken.
That sorrow can ne'er set right.

'We have careful thoughts for the stranger,
And smiles for the sometimes guest,

But oft for our own the bitter tone,
 Though we love our own the best.
 Ah! lips with the curl impatient,
 Ah! brow with the shade of scorn:
 'Twere a cruel fate, were the night too late
 To undo the work of the morn."

Not a word need be added to the above. It comes every word home in letters of light to every soul, and should be treasured and made the admonitions of every life of wife, husband, parent and child, sister and brother, friend and lover.

For the Maryland Farmer.

A New Rapid Transit.

"To him who in the love of Nature holds
 Communion with Her visible forms,
 Must ride a 'cycle.'"

The bicycle is a new and popular conveyance. Its permanency is settled, and the thousands in use will hand down a posterity of a million. The bicycle is not a novelty, it is a practical machine built for road use and used by every business and profession. After the first cost, and a bicycle costs less than a good horse, the expense of keeping is on a par with piano tuning. Not only does this new "steed" serve as an ever ready rapid transit, but it gives its rider the acme of out-door exercise. It combines pleasure, health and strength, with business. In short it is the "wheel of health," the "economical horse," and the "great pleasure steed of to-day." For doctors it saves time and money; for merchants it takes them from home to office and from office to dinner. For collectors it is the best of conveyances from house to house. For the farmer it carries him to town and over his farm. In fact the bicycle is a "steel horse" for everybody.

The new Columbia tricycle is a machine for general use by both ladies and gentlemen. This new steed is made by the Pope Manufacturing Company, of Boston, Mass., and in workmanship and finish it is fully equal to the well known Columbia bicycles, which according to the *Scientific American*, are "undoubtedly the most perfect bicycle now made."

Hundreds of ladies in England are now riding these beautiful steeds' and there is no reason to suppose that the American ladies will not follow the excellent advice of the "cousins over the water." Speaking of tricycle riding, Dr. Richardson, of London, says, in "*Good Words*."

"I shall rejoice to see the time when this exercise shall be as popular among girls and women as tennis and the dance, for the more fully the physical life of our womankind is developed the better for men as well as women."

The bicycle is but a dozen years of age, yet it seems as though it has been with us for a century, so common has become its use. The bicycle trade for this year has been ahead of any previous season, the manufacturers being pushed to their utmost to supply the demand, and in the popular styles and sizes often behind their orders.

If the sale continues in the ratio of the past there will be hardly a road from the Atlantic to the Pacific which is not traversed by this wheeled brother of Pegasus. P. M. C.

Publications Received.

INSECTS INJURIOUS TO FRUITS.—By William Saunders, F. R. S. C., President of the Entomological Society of Ontario, Can. Editor of the *Canadian Entomologist*, &c., &c. Illustrated with 440 wood cuts, published by Lippincott & Co., Phila., Pa. Price \$3.00. This carefully prepared work by a learned and scientific entomologist is elegantly put before the public and is worthy of its author and the publishing house. It is saying hardly enough to declare it the best work on the subject we have examined, and no horticulturalist or plain farmer should be without a copy. It will pay treble cost in a short time, to all who would attend to its instructions. What has long been wanted by the ignorant in such matters is, a remedy for plant enemies. We all know them, and scientists tell us all about the habits, formations, &c. of insects, but fail to tell us how to get rid of the pests. This book does that very thing and hence its great value.

FROM ORANGE JUDD COMPANY, 751 Broadway, N. Y., the new edition of *Barry's Fruit Garden*. By P. BARRY, price, post-paid \$2.50. This remarkable book has been revised and a new edition issued to suit the times and the increasing demand for such a work. Enough to say that it does credit, in its get-up, to that popular publishing firm of agricultural books, and is the ripened experience, under the highest mental culture aided by careful practice, submitted to an inquiring public in language comprehensible to both the educated and the unlettered disciple of horticulture. In its plain practical details of important facts and in its simplicity of language consists its immense value to every man who grows a fruit of any sort, or a nut-bearing tree. The man who owns this book has a friendly instructor always at his side, when he deals with a tree, shrub or vine. The study of this work will make a man a practical botanist before he knows it, and cannot fail to give both pleasure and immense profit if its suggestions are carefully followed. It is, in our humble judgment, an indispensable book for every man or woman who owns a tree or shrub, or fruit bearing vine.

THE MARYLAND GUIDE, from J. Frank Lewis & Co., No. 15 Post Office Avenue, Baltimore, Md., publishers of the Maryland Directory. This is a useful and handy guide for merchants and all business men, as it contains the name of 1012 post-offices, railroad stations, wharves and landings, the county in which each is situated,

with its location or distance to nearest point for trade or travel, also list of banks, newspapers, colleges, schools, hotels and summer resorts in the State.

FROM the Secretary of the Fruit Growers' Association, of Ontario, Canada, the Annual Report for 1882. This is a neatly printed and bound volume, full of instruction and interest to all, but especially to the horticulturist.

GRASSES, MEADOWS AND PASTURES, SORGHUM AND THE MANUFACTURE OF SUGAR.—By J. B. Killebrew, A. M. Ph. D.—Is the title of a very instructive, and indeed, both elaborate and able treatise of 135 pages, lately issued from the fluent pen of our well known friend, to whom the breeders of sheep were some years ago indebted for a practical treatise of great value, and from which we extracted to a considerable extent. Mr. K. has done much heretofore for the farming interest, but his crowning effort has been to produce this carefully prepared work on subjects that should engross the attention of every agriculturist. It must, or at least, should meet with a wide demand from every man who desires to know all about the grasses he grows, and how to make "*two blades grow where one grew before.*"

MOORE'S UNIVERSAL ASSISTANT AND COMPLETE MECHANIC.—Price \$2 50. J. S. Ogilvie & Co., publishers, 31 Rose street, N. Y. This is a closely printed book of over 1,000 pages, giving in a condensed form, recipes about all sorts of cookery, mechanics, chemistry, and every conceivable thing or occupation. Well illustrated where necessary. It is a compendium that should be owned by every intelligent housewife, farmer and mechanic.

SPECIAL REPORT No. 59, of the Department of Agriculture, on Winter Grain and Cotton Planting and Estimate of Cereals of 1882, &c. This report is well worthy of the source from which it emanates. Such reports, so frequent, are of great importance to the American husbandman and are received in Europe with marked consideration.

FROM ORANGE JUDD Co., 751 Broadway, N. Y. "*The Soil of the Farm.*" A most remarkably fine little book, joint production of such eminent men as J. B. Lawes, J. C. Morton, John Scott and George Thurber. No land worker should be without this book to read, reflect upon and study over, and then intelligently apply its theories built upon the experience of its distinguished authors.

ROPP'S COMPUTATION DIARY.—Is an admirable little pocket companion for everybody of every sort of occupation. Published by C. Ropp, Jr., Bloomington, Ill.

TRANSACTIONS OF THE MASSACHUSETTS HORTICULTURAL SOCIETY FOR 1882, Part 2nd—This is like all its predecessors, an interesting number, and contains the names of all its members, &c., besides other matters of interest to all who take an interest in this, the most distinguished association of the sort in America, and also the the oldest *live* society in the Union, numbering among its members the prominent horticulturists of the world.

Journalistic.

The Tribune and Farmer. D. K. Curtis & Co., publishers, Philadelphia, Pa., is a live weekly, and will no doubt in the future become more so since we see the veteran editor, D. D. T. Moore, has mounted the agricultural tripod, having Miss Louisa Knapp as conductress of the Household. Success to the *Tribune and Farmer*, with its coadjutors in these important and almost inseparable departments.

The Live Stock Monthly, No. 5 Exchange street, Portland, Maine, has dawned upon the breeders of live stock with the brightness of a North star. It is admirably gotten up, on good paper, well illustrated and as full of good, solid matter as an egg is of meat. It must become popular if it keeps up to the standard it has erected for itself and which has, so far, advanced rather than depreciated from its first issue. From the first number it has increased in usefulness and received corresponding increase in circulation.

THE June number of the *Ladies' Floral Cabinet* has been received. It is well printed and illustrated with new, rare and choice flowers. Published by the Ladies' Floral Cabinet Co., 22 Vesey street, New York, at \$1.25 a year.

Catalogues Received.

From Messrs. Ant Roogen & Son, Haarlem, Holland. Catalogue of Dutch and Cape Bulbs. As will be seen by advertisement in this number of the MARYLAND FARMER, of Mr J. A. De Veer, agent N. Y., this firm offers to purchasers of flowers the rare opportunity of importing direct from Holland, any bulbs they may want in small amounts, from \$1 and upward. They will be shipped per order and delivered C. O. D.

**Great Butter Product of Jersey Cow
Value 2nd, owned by Messrs.
Watts & Seth, of Balto. Co.**

25 lbs. 2 and 11-12th ounces of butter in seven days!! This puts her on the top-most round of the Jersey ladder in the world.

Thanks to the kindness of the committee who made this very thorough test, we have a full report of the same, which we give in full.

Hurrah! Maryland takes the cake, with *Value 2nd*, live weight 955 lbs., and making 25 lbs., 2 and 11-12th oz. of butter, clear of all water or milk and salt, in *seven days*. We are to-day, verily, the Banner State for Jerseys!

BALTO., June 28, 1883.

JOHN G. CLARK, Esq.

Pres. Md. Breeders' Assoc'n.

Sir.—In compliance with the request contained in your letter of the 13th ult., that we should assist in making a 7 days' test of the Jersey cow, *Value 2nd*, 6844, owned by Messrs. Watts & Seth, of Baltimore, Md., the undersigned would report as follows:

In company with Col. M. C. Weld, of New York city, who had been appointed for the same purpose by the A. J. C. C., after having purchased from Messrs. Fairbanks & Co., a pair of scales, and seen them properly tested, we went to the farm of her owners, and at 10 P. M., June 18th, saw the cow thoroughly milked and stripped clean. Promptly, at 6 A. M., June 19, we began our test, the particulars of which will be shown by the tabulated statement given below.

Impressed with the feeling that only in proportion to their thoroughness and accuracy, are such tests as these reliable, it has been the aim of your committee to take no action and note no result until they were fully satisfied of its correctness.

The routine of their proceedings was as follows. Each milking, skimming and churning was done promptly at the hour stated. The milk was taken to the dairy and weighed, being always in our sight until placed within the creamer. Whenever used, the scales were examined and found to be correct. The milk was set in ice-water in a Mosely & Stoddard creamer, which was locked with two locks, the key of one being kept by your committee, and that of the other by Col. Weld. The

creamer was also secured by tape and a seal which was at all times found unbroken. The cream was ripened at a temperature of 62°, the same care being taken of it as of the milk. The cream from each day's milking was churned separately, in a Stoddard churn, in the presence of your committee and others; the butter taken from the churn in a granular form and worked with a butter worker. It was then carefully examined with a paddle by each person present and pronounced by all properly and thoroughly worked. The scales were then tested and the butter without being salted, carefully weighed. We each inspected every operation and immediately entered every result in our notebooks to prevent the possibility of error. Our entries were afterwards compared and found to correspond.

We will add that several examinations with the Fesser lactroscope showed less than $\frac{1}{4}$ of one per cent. of fat remaining in the skim milk. The buttermilk was twice churned but no more butter obtained. Such being the care exercised in conducting our test, we take pleasure in submitting this our report, confident in the entire accuracy of its statements.

Mr. T. Alex. Seth was present during the entire test, and Mr. Thos. Taggart, a former owner of *Value 2nd*, in whose hands she made a private test of 24 lbs. 3 oz. of butter in seven days, with her second calf, saw it all with the exception of the first two milkings. Mr. F. Van Kapff, a member of the American Jersey Cattle Club, witnessed the last two milkings and the churning of June 25th, as did also Mr. G. S. Watts. Mr. John G. Clarke and Dr. P. S. Field of Baltimore city were present at the last churning and saw the butter worked and weighed. Many prominent Jersey breeders and other persons interested in live stock called at intervals and inspected our proceedings. During the test the cow was fed under the supervision of her owners, their account of which we hand you herewith. Respectfully submitted,

Committee. { WM. H. WEST.
 { ALEX. M. FULFORD.

BALTIMORE, June 28, 1883.

Gentlemen.—In reply to your inquiry as to what food was fed *Value 2nd*, during the week of her test, just concluded, will say;

That as neither accurate weights nor measures were used, I am unable to say what amount of food was given her. Of grain, she had corn chop, bran, cotton seed meal and linseed meal. She was fed three times a day, morning and evening, corn, bran and cotton seed, and at noon, a small quantity of linseed meal was substituted in the place of the cotton seed, for three nights after the last milking she had a small quantity of oatmeal gruel, made of, say $\frac{1}{2}$ lb. of dry meal.

Her green food consisted of cut clover and orchard grass mixed, and oats and peas mixed, on alternate days; besides, she had the run in the morning of about one acre of old pasture that had been completely grazed off this season. At night, she was put into another lot of about one acre, mostly wood, with a little orchard grass outside of the wood, on which three cows, herself included, had been running

for three weeks. These runs were given her for air, shade and water principally. Of pasture, strictly speaking, I have none, as I soil my cattle entirely, and for the whole period she was fed with reference to the preservation of good health, hoping for as good a yield as was consistent therewith.

Respectfully,

T. ALEX. SETH.

W. H. WEST.

A. M. FULFORD. } *Committee.*

[We had the pleasure of meeting the committee at Mr. Seth's the morning when the churning took place, which, of all, was the largest during the test. If ever there was an impartial, accurate test of a cow's product of butter, this has been one, and admits not a shade of doubt as to its accuracy.—W.]

TEST OF JERSEY COW, "VALUE 2nd" 6844.—Weight of Cow, 955 lbs.

	Temperature of cow 6 a m	Weather	Time of milking	Weight of milk at each milking		Total milk each day	Date and time of skimming	Date and time of churning	Temperature of cream	Time taken to bring butter	Quality of butter	Weight of butter
				lbs.	oz.	lbs.						
June 19th Tuesday.	103°	Sultry hot	6 a m 2 p m 10 p m	14 14 16	07 08½ 07½	45 7¼	20th 6 30 a m " 2 30 p m " 10 30 p m	June 22 9 17 a m	62°	53	First class Thoroughly worked	3 06½
June 20th Wednesday	102½°	Slightly cooler	6 a m 2 p m 10 p m	15 14 15	10½ 05½ 04	45 4¼	21st 6 30 a m " 2 30 p m " 10 30 p m	June 23 9 25 a m	62°	50	Exceedingly hard, dry and granular, thoroughly worked, very rich in color	3 15
June 21st Thursday	101¾°	Pleasant, somewhat cloudy; rain at evening	6 a m 2 p m 10 p m	17 12 16	00½ 03½ 11½	45 15½	22nd 6 30 a m " 2 30 p m " 10 39 p m	June 23 8 15 p m	62°	45	Thoroughly worked.	3 07
June 22nd Friday	101¾°	Pleasantly warm	6 a m 2 p m 10 p m	15 11 19	09½ 15½ 01½	46 10½	23rd 6 30 a m " 2 30 p m " 10 30 p m	June 25 4 13 p m	62°	56	Fine color; first class	3 06½
June 23rd Saturday	101°	Fine, dry, pleasant temperature.	6 a m 2 p m 10 p m	16 15 16	13½ 04 11½	48 13	24th 6 30 a m " 2 30 p m " 10 30 p m	June 26 10 a m	64°	20	Thoroughly worked and granular rich color.	4 01½
June 24th Sunday	101½°	Clear, fine day	6 a m 2 p m 10 p m	16 13 15	07 10½ 07	45 8½	25th 6 30 a m " 2 30 p m " 10 30 p m	June 27 8 58 a m	64°	25	Worked as before; very fine in quality.	2 15
June 25th Monday	101¾°	Fair to partly cloudy.	6 a m 2 p m 10 p m	17 14 17	06 09 06	49 5	27th 10 a m	June 28 9 15 a m	63°	25	Fine color; rather over-worked.	3 15½
TOTALS						327 lbs.						25 02½

After weighing the morning's milking for June 23rd, and while pouring it into the creamer, some was lost by the leaving open of of a faucet. The milk was then reweighed and the loss was found to be exactly two pounds. Consequently the full amount of milk actually set for this day was 46 lbs. 13 oz. The cream from it made 3 lbs. 14½ oz. of butter. From a calculation made upon this basis we find the two pounds of milk lost would have made 2½ oz. of butter. Believing it would be doing the animal injustice not to give her full credit for what she has really produced, we add this to the amount churned, making in all 4 lbs. 1 6th ounces.

Our Summer Resorts.

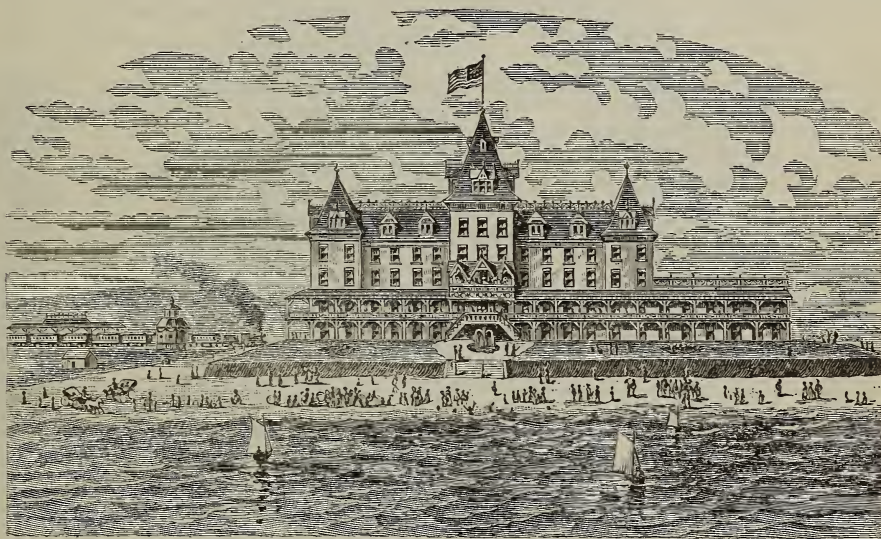
Attention is called to the advertisement in this number of the *FARMER*, of Mr. A. J. Michener, owner and proprietor of the famously romantic Watkins' Glen. Few travellers to Niagara or Canada, fail to visit this Glen.

The Glen is situated near the head of Seneca Lake, between two ranges of mountains, which seem to have been torn asunder in its formation. It consists properly of a number of glens or sections, rising one above another, forming a series of rocky arcades, galleries and grottoes, subterranean at times, and again widening out into vast amphitheatres, the grandeur and magnificence of which is indescribable.

wash the embankment around its walls, and when they ebb leave a wide and splendid beach for exercise. A better sea-side resort cannot be easily found in this country. See advertisement in this number of *THE MARYLAND FARMER*.

Notices of Advertisements.

It is with pleasure we call the attention of our readers to the advertisement of the Brown Chemical Co., of this city, to be found on page 1 next to reading matter of this issue. Mr W.S. Powell of this firm makes special fertilizers for specific crops a continual study, and the products of his firm have been very successful. "Powell's Prepared Chemicals" and Powell's "Tip-Top



Hotel Fiske—Old Orchard, Me.

We are enabled to give a cut of the rear ocean view of this elegant new hotel. This hotel has all the modern improvements of the age, and a music hall, piazza, surf bathing at the door and many other provisions for the amusement and recreation of its guests. The table is always supplied with the best. Having been a visitor there, and so much pleased, we shall go again. Old Orchard is remarkable for its salubrious climate and healthy location, seated by the waves of the ocean, which at high tide

Fertilizer" are too well-known to the planters of Maryland and the adjoining States to require any special recommendation from us, but knowing Mr. Powell and the Brown Chemical Co., we believe that the utmost confidence may be reposed in them. Mr. Powell is always willing to reply to letters from farmers, enquiring about fertilizers.

In reference to the advertisement of A. R. Blacklock & Co. which appears in this issue, we would state that the *MARYLAND FARMER* is and has been for years past, printed on paper furnished by this firm. From our business relation we can safely add our testimony to the prompt and efficient manner in which this long established firm conducts its affairs and responds to all orders.

We learn that the Horner & Hyde patent bag for fertilizers, prepared by the Baltimore Non-Corrosive Bag Co., is increasing in demand. Orders for autumn and winter trade are beginning to come in from various States and markets. See advertisement.

Messrs. J. J. Norfolk & Bro., commission merchants, have an advertisement in this issue, and we only need to say that we have been dealing with this firm for thirty years and always with satisfaction, that we consider them reliable and worthy of public confidence.

A London letter says:—"Tricycling is developing in a remarkable way. The 'sociable' is common in all the suburban regions and in many of the great thoroughfares at London. The Prince of Wales' children are often to be seen working this novel vehicle in the grounds at Sandringham. The other day, on the coast road near Deal, I met the Vicar of Wolmer and his wife skimming gaily along the highway, both plying the 'treddle' with mutual vigor."

HOPKINS, MATTHEWS & Co.—Is one of the most active business commission houses in our city. Goods consigned to them will meet with prompt attention. See their Ad. in this number of the FARMER.

THE MARYLAND STATE FAIR commences at Pimlico, the 29th of October of this year. Since the organization of this Society, there has never been so good an opportunity for a fine exhibition as is likely to be this year. There is more and better fine stock of all kinds, and a greater amount of superior machinery, as well as increased products of the soil in the State than ever before, with the added facility in getting there of steam cars landing passengers directly on the grounds. With these inducements now offered, we predict a large attendance of the public and feel sure it will be an immense success.

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